

NUMBER FRIENDS



HOWARD ~ HAWTHORNE ~ HOWARD

CARL ACKERMAN



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NUMBER FRIENDS

A PRIMARY ARITHMETIC

BY

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ALICE HAWTHORNE

AND

MAE HOWARD

CLASSROOM TEACHERS IN THE TACOMA
PUBLIC SCHOOLS

ILLUSTRATED BY

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0 1 2 3 4 5 6 7 8 9



THE TEN NUMBER FRIENDS

When you read the figures 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9, you have read all the figures there are—just ten. Every one who writes a number uses one or more of these figures. Little children in America, England, France, Holland, Norway, Spain, or India know and use these figures. There are many, many ways to use them and many, many things one can do with them. *Twenty-six* is a number. Figures say it this way, 26. A larger number is *one hundred*. Figures say it this way, 100. You can make any number you can think of by using the ten figures. In this book we shall have fun learning how to use them. We shall

count. Then we shall learn to add without counting. We shall learn to play number games. We shall learn how to buy things, how to measure, how to tell time. And always the ten little number friends will help us.

COUNTING

Look around the room

Find 1 book.

Find 2 girls.

Find 3 boys.

Find 4 windows.

Find 5 pencils.

Find 6 cards.

Find 7 seats.

Find 8 papers.

Find 9 crayons.

Count ^{5 4} each time to show that you have the right number.

SOMETHING TO DO:

Take paper and crayola and do either 1 or 2, whichever you like better.

1. Draw —

one red square
two blue squares
three yellow squares
four green squares
five black squares
six brown squares
seven purple squares
eight white squares
nine red squares

2. Draw —

two oranges	five marbles
four books	three boxes
six apples	one cat
eight pencils	nine trees
seven hats	



COUNTING

Can you say the nine numbers correctly? Try to say them fast. The number 10 is 1 more than 9. Now let us count and say 10 after 9.

Perhaps you know this rhyme. If not, let us learn to say it.

A COUNTING RHYME

One, two,	Five, six,
Buckle my shoe.	Pick up sticks.
Three, four,	Seven, eight,
Shut the door.	Lay them straight.
Nine, ten,	
A good fat hen.	

Look at the pictures on page 4 and say the rhyme that belongs with each picture.

QUESTIONS

Which is smaller —

1. A house or a school?
2. An olive or an orange?
3. A ball or a marble?
4. A brook or a river?
5. A chick or a hen?
6. A grape or an apple?
7. An automobile or a motor truck?

Which is larger —

1. A cow or a calf?
2. Your desk or the teacher's desk?
3. A watch or a clock?
4. A man or a baby?
5. A doll or a girl?
6. A horse or a dog?
7. Your foot or your nose?

MYSELF

Read each line and fill the blanks with a number. See how quickly you can do it.

1. I have —— hands.
2. I have —— feet.
3. I have —— head.
4. I have —— thumbs.
5. I have —— eyes.
6. I have —— nose.
7. I have —— fingers.
8. I have —— arms.
9. I have —— mouth.
10. I have —— ears.
11. I have —— neck.
12. I have —— lips.
13. I have —— toes.
14. I have —— legs.



QUESTIONS

Which is taller —

1. A tree or a bush?
2. A church or a house?
3. A boy or a man?
4. A dog or a cat?
5. An elephant or a pony?
6. A pony or a horse?

Which is shorter —

1. A girl or a baby?
2. A calf or a cow?
3. A woman or a doll?
4. A bird or a pig?
5. A pitcher or a cup?
6. A chick or a hen?

COUNTING

Count to 10. See how fast you can do it.

Rap on your desk —

five times.

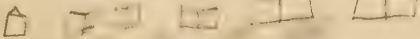
eight times.

ten times.

three times.

Take paper and pencil and draw —

four apples. 

six boxes. 

five trees. 

nine buttons. 

MATCHING NUMBERS

Look at the blocks on page 11.

Put your fingers on two blocks that mean the same thing.

Say the number quickly.

Write the number and the word on the board.

Try to spell the word without looking at it.

Try to write the word without looking at it.

SOMETHING TO DO:

1. Write the words that belong with these figures: 1 2 3 4 5.

2. Write the figures that belong with these words: six, seven, eight, nine, ten.

3. Draw two rows of blocks. Have 6 blocks in one row and 7 in the other.

two

five

seven

nine

eight

one

three

six

four

4

1

2

6

3

7

9

5

8



AT THE FAIR

Fill the blank spaces:

Mary has —— balloons.

John has —— balloons.

The man has —— balloons.

There are —— balloons in the picture.

There are —— people in the picture.

SOMETHING TO DO:

Take a piece of paper.

Draw 8 balloons.

Color 2 balloons red.

Color 2 balloons blue.

Color 2 balloons yellow.

Color 2 balloons green.

MORE ABOUT BALLOONS

Fill all the blank spaces:

Tom had 2 balloons.

Mary gave him 1 more.

That made —— balloons.

John gave him 1 more.

That made —— balloons.

Nell gave him 1 more.

That made —— balloons.

One of Tom's balloons blew away.

He had —— balloons left.



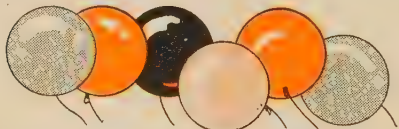
One and one are —.



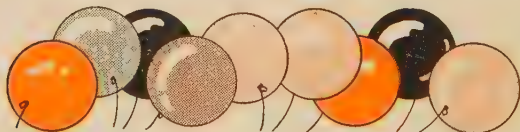
Five and one are —.



Eight and one are —.



Six and one are —.



Nine and one are —.



Seven and one are —.

COUNTING

The number 11 is one more than 10.

Count to 11.

The number 12 is one more than 11.

Count to 12.

What number comes before 6?

What number comes before 3?

What number comes before 4?

What number comes before 12?

What number comes after 2?

What number comes after 5?

What number comes after 7?

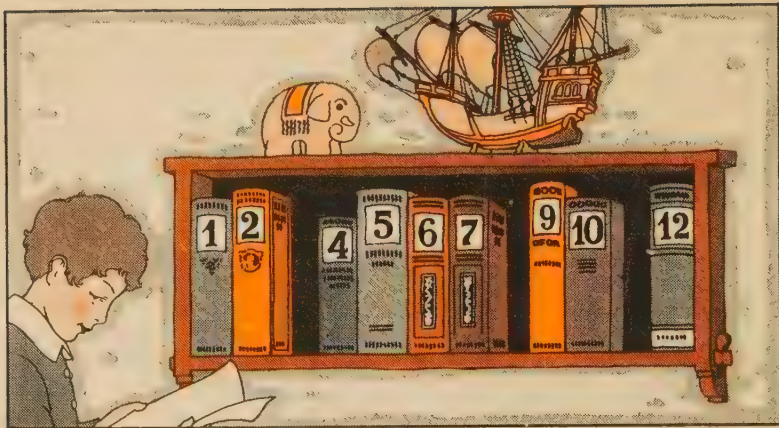
What number comes after 10?

What number comes after 11?

What number comes before 11?

What number comes before 8?

What number comes after 8?



This is Tim's bookshelf.

Tim owns 12 books.

He put a number on each book.

Which numbers are missing from the shelf?

Tim has loaned 3 books to his friends.

What were the numbers on the books he loaned?

How many books are on the shelf now?

When 2 books are returned how many books will be on the shelf?

DO YOU KNOW?

1. How far you walk to school?
2. How far you walk home?
3. How long it takes you to walk to school?
- ④ 4. How much it costs to mail a letter?
5. Who is the tallest boy in this room?
6. Who is the tallest girl in this room?
7. Who is the smallest child in the room?
8. How many books are in your desk?
9. At what time school begins?
10. At what time you go home to lunch?
11. How many drank milk at school to-day?
12. What day of the week this is?
13. What month this is?
14. How many children are absent to-day?
15. How many rooms there are in your school?

COUNTING

1. How many people are in the picture?
2. Are there more girls than boys?
3. How many shelves of books are there?
4. Count the books on the first shelf.
5. Count the books on the second shelf.
6. Count the books on the third shelf.
7. Which shelf has the largest number of books?
8. Which shelf has the smallest number of books?

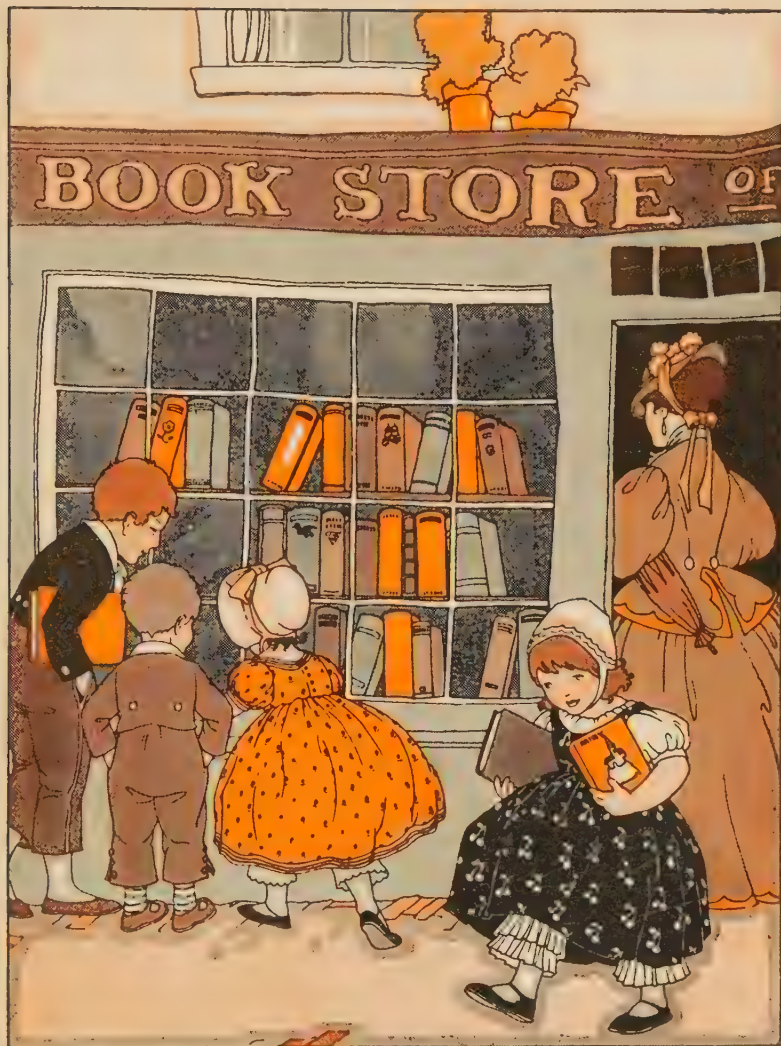
SOMETHING TO DO:

Draw three shelves.

Draw 5 books on one shelf.

Draw 4 books on another shelf.

Draw 3 books on another shelf.



ADDING ONE

Count from one to ten.

1 2 3 4 5 6 7 8 9 10

Put your finger under 3. Say the next number.

Put your finger under 7. Say the next number.

Put your finger under 5. Say the next number.

Put your finger under 1. Say the next number.

When we say the next number we are *adding one* to the number before it.

Figures say it this way:

3	7	5	0	1
1	1	1	1	1
4	8	6	1	2

$$\begin{array}{r} 4 \\ 1 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 2 \\ 1 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 8 \\ 1 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 1 \\ 6 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 1 \\ 9 \\ \hline 10 \end{array}$$

We call the figure that comes below the line the *answer*.

Put a paper over the answers in the book and write your own answers.

Take the paper away and see if your answers are like those in the book.

Did you get them right?

The answer is also called the *sum*.

We say 4 is the sum of 3 and 1, or 8 is the sum of 7 and 1.

What is the sum of 8 and 1?

What is the sum of 1 and 8?

What is the sum of 10 and 1?

What is the sum of 1 and 10?

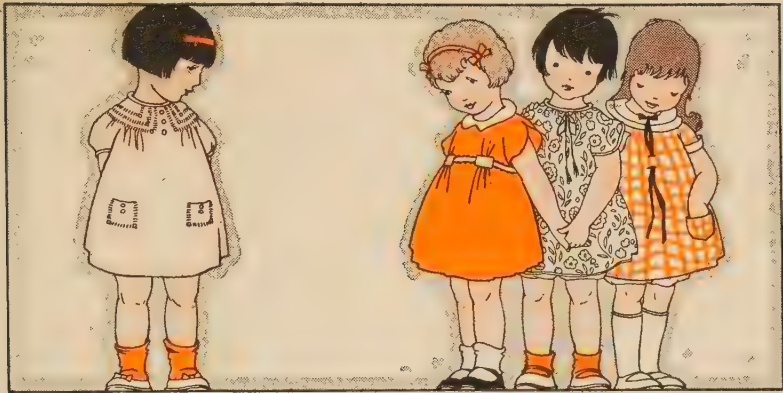
What is the sum of 6 and 1?

What is the sum of 1 and 6?

NUMBERS TO ADD

Tell or write the answers. Remember that the answer is called a *sum*.

$\begin{array}{r} 1 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 1 \\ \hline \end{array}$
$\begin{array}{r} 1 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 1 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 1 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 1 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 8 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ 1 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ 5 \\ \hline \end{array}$



PROBLEMS

Fill the blank spaces:

1 girl and 3 girls are —— girls.

1 book and 1 book are —— books.

1 boy and 2 boys are —— boys.

2 desks and 1 desk are —— desks.

3 dolls and 1 doll are —— dolls.

1 box and 2 boxes are —— boxes.

Give the sums:

3	1	4	2	1	1
1	2	1	1	1	3

MONEY

Here is a penny.



Another name for a penny is a *cent*.

Here is a nickel.



Here is a dime.



A penny is one cent.



A nickel is worth five cents.



A dime is worth ten cents.

SOMETHING TO DO:

Tell something you can buy with a penny.

Tell something you can buy with a nickel.

Tell something you can buy with a dime.

Fill the blanks:

1 cent and 1 cent are ——— cents.

5 cents and 1 cent are ——— cents.

1 cent and 3 cents are ——— cents.

3 cents and 1 cent are ——— cents.

9 cents and 1 cent are ——— cents.

2 cents and 1 cent are ——— cents.

4 cents and 1 cent are ——— cents.

1 cent and 2 cents are ——— cents.

1 cent and 4 cents are ——— cents.

6 cents and 1 cent are ——— cents.

1 cent and 8 cents are ——— cents.

7 cents and 1 cent are ——— cents.

10 cents and 1 cent are ——— cents.

1 cent and 11 cents are ——— cents.



PROBLEMS

1. May spent 5 cents for an ice-cream cone and 1 cent for a lollipop. She spent —— cents.

2. John had 6 books. His father bought him a new one. Now he has —— books.

3. It is 3 o'clock. In 1 hour it will be —— o'clock.

4. Jane is 6 years old. Her little friend Sue is one year older. Sue is —— years old.

5. There were 8 little birds on a branch and one more came. Then there were —— birds.

6. James had 9 marbles. He found 1 more. He has —— marbles.

7. Our table was set for Father, Mother, Sister, and me. Grandmother came to dinner. We added 1 more place. The table was then set for ——.

SOMETHING TO DO:

Did you ever have company after your table was set?

How many people came?

Think of a problem about it.

Tell how many places your table had.

How many places did you add?

Ask some one to tell how many places that made.

Tell him whether he is right or not.

Make up some other problems.



COUNTING

In the picture, John and Mary are tossing a ball. Two of you may do that. Let us all count the number of times the ball is tossed.

Did we stop counting when we came to 12?
Then let us learn the numbers after 12 so
that we may go on counting.

Thirteen (13) is one more than 12.

Fourteen (14) is one more than 13.

Fifteen (15) is one more than 14.

What is one more than 15?

What is one more than 16?

What is one more than 17?

What is one more than 18?

Twenty (20) is one more than 19.

Now let us say the numbers through 20.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Two of you may toss the ball again. This
time we can keep on counting till we come
to 20. We will try to count as fast as the
ball goes.

A PUZZLE

1		3		5
	7		9	
11		13		15
	17		19	

Half of these cards have their numbers turned toward you.

Half of them have their numbers turned the other way.

Can you tell the numbers that you can not see?

In the first row the second number is 2.

What are the other numbers?

Read them forward and backward.

COUNTING

Read all these figures. Your teacher will help you.

0	10	20	30	40	50	60	70	80	90
1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99

Look at the figures on page 31.

Find 5, 18, 21, 37, 44, 53, 68, 79, 80, 99.

The next number after 99 is 100.

Read the column of 20's.

Read the column of 60's.

Read the column of 80's.

Read the column of 50's.

Now say the column of 30's.

Say the column of 90's.

Say the column of 40's.

Say the column of 70's.

SOMETHING TO DO:

Take paper and pencil.

1. Write the number that tells the first page in this book.

2. Write the number of the page that has the second picture.

3. Write the number of the page that has the third picture.

QUESTIONS

1. Which is more, 10 cents or 6 cents?
2. Which is less, 8 cents or a nickel?
3. Which is fewer, 9 cents or 12 cents?
4. Which is farther, 5 miles or 4 miles?
5. Which is nearer your home, a store or the school?
6. Which is wider, the street or the sidewalk?
7. Which is narrower, a windowpane or a door?
8. Which is faster, an automobile or a horse?
9. Which is slower, a horse or a cow?
10. Which is thicker, leather or silk?
11. Which is thinner, paper or board?
12. Which is longer, your hand or your arm?

A CHART

3	10	13	22	34	9
12	2	17	28	36	26
33	23	1	20	24	8
25	35	31	4	19	15
16	32	29	27	5	7
11	30	21	18	14	6

Look at the chart.

Point to 3.

Think one more than 3.

One more than 3 is 4.

Say 4.

Add 1 to each number on this chart in this same way.

Which number on the chart tells how old you are?

Fill these blanks:

I am —— years old.

Next year I shall be —— years old.

COUNTING BY 10's

Read the top row of figures on page 31.

To say the numbers this way is to count by tens.

20 means two 10's. 60 means —— 10's.

30 means three 10's. 70 means —— 10's.

40 means —— 10's. 80 means —— 10's.

50 means —— 10's. 90 means —— 10's.



Look at the boat in the picture.

A ride on this boat costs 10 cents.

1. How much will it cost Tom to ride?
2. How much will it cost Mary and Sue?
3. How much for Tom, Dick, and Ned?

4. Three children will have to pay —— cents?
5. Seven children will have to pay —— cents?
6. Five children will have to pay —— cents?
7. Four children will have to pay —— cents?
8. Six children will have to pay —— cents?
9. How much will it cost all the children in the picture?

MORE COUNTING BY 10's

Read the first row of figures on page 31.

Read them again and say 100 after 90.

This is counting to 100 by tens.

Do it without looking at page 31.

Fill the blanks:

1 ten is 10.

6 ten's are ——.

2 ten's are 20.

7 ten's are ——.

3 ten's are ——.

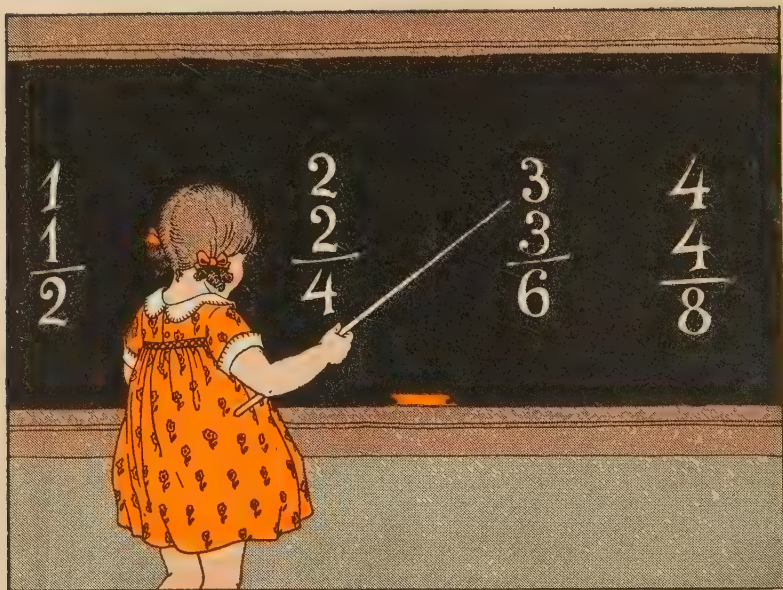
8 ten's are ——.

4 ten's are ——.

9 ten's are ——.

5 ten's are ——.

10 ten's are ——.



DOUBLES

Nell is pointing at the blackboard and saying:

“Easy, Easy!

Don’t you see

How easy these doubles

Are for me?”

Do you know what *double* means?

When two things are just alike we call them *doubles*. These numbers are doubled; that is, each one is taken twice.

1	2	3	4	5
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
2	4	6	8	10

SOMETHING TO DO:

Read these to yourself and fill the blanks.

One and one are —.

Two and two are —.

Three and three are —.

Four and four are —.

Five and five are —.

Then shut the book and say the doubles you have just read.

PROBLEMS

1. Mary has 2 pairs of rubbers. How many rubbers does that make?

2. Jack had 5 cents and his uncle gave him 5 cents. How much has he now?

3. James has a dime and a penny. How much money has he?

4. May has a nickel and a penny. How much money has she?

5. Mother gave Mary 3 cookies and John 3 cookies. How many cookies did that make?

SOMETHING TO DO:

Fill the blanks:

Two 2's are _____. Three 2's are _____.

Two 10's are _____. Six 10's are _____.

Five 2's are _____. Four 2's are _____.

Two 5's are _____. Two 4's are _____.

Three 10's are _____. Four 10's are _____.

Five 10's are _____. Ten 10's are _____.

Two 3's are _____. Two 1's are _____.

Seven 10's are _____. Eight 10's are _____.

Nine 10's are _____. Ten 1's are _____.

HOW MANY?

Fill the blanks:

1. There are —— cents in a dime.
2. A cat has —— feet.
3. A bird has —— feet.
4. There are —— days in a week.
5. There are —— boys in this room.
6. There are —— shoes in a pair.
7. There are —— cents in a nickel.
8. There are —— school days in a week.
9. There are —— girls in this room.
10. There are —— fingers on one hand.
11. The word *boy* has —— letters.
12. The word *girl* has —— letters.
13. The stamp on a letter costs —— cents.
14. A bicycle has —— wheels.
15. A bird has —— wings.
16. An automobile has —— wheels.

THE "NUMBER FRIENDS" CHILDREN

Here are the names of boys and girls you will meet in your *Number Friends* book. You can see some of the children in the picture on page 43.

Mary	Betty	Joe
James	Paul	Norman
Dick	Tom	Jean
May	Ann	Henry
Carl	Billy	Tim
Frank	Claude	Bob
Kate	Sam	Ruth
John	Mike	Nell
Ted	Roy	Will
Jack	Jane	Nan
Fred	Dan	Ned
Mary Ann	Sue	Harry

Read the list of names.



1. How many are girls?
2. Read their names.
3. How many are boys?
4. Read their names.
5. How many names are in the first row?
6. How many boys' names are in the first row?
7. How many girls' names are in the first row?
8. Count the names of boys in each row.
9. Count the names of girls in each row.
10. How many boys are in your room?
11. How many girls are in your room?
12. How many boys and girls in your room have names like the names of the *Number Friends* children?
13. How many have names that are not in the *Number Friends* list?
14. How many different names are there in your room?

TWO OF US

Fill the blanks:

1. Tom and I together have —— hands.
2. Fred and I have —— feet.
3. Mary and I have —— heads.
4. Tim and I have —— thumbs.
5. Claude and I have —— eyes.
6. Billy and I have —— noses.
7. Joe and I have —— fingers.
8. Nell and I have —— arms.
9. Baby and I have —— mouths.
10. May and I have —— ears.
11. Sue and I have —— necks.
12. Ann and I have —— lips.
13. Carl and I have —— toes.
14. Bob and I have —— legs.
15. Dick and I have —— faces.

FIND THE SUM

Copy these numbers on paper and write the sum under each example:

2	1	1	5	2	4
2	1	2	5	1	4
—	—	—	—	—	—
3	1	1	3	4	5
1	4	3	3	1	1
—	—	—	—	—	—

COUNTING BY TWO'S

Write all the numbers from 1 to 50. Cross out the 1. Skip the 2 and cross out the 3. Skip the 4 and cross out the 5. Keep on in this way. Read the figures you have left. Try to say them without looking at the paper. This is counting by 2's.

SOMETHING TO DO:

1. Count by 2's with pencil and paper without having any numbers to cross out.

2. Fill the blanks:

Two 2's are ———.	Six 2's are ———.
Three 2's are ———.	Seven 2's are ———.
Four 2's are ———.	Eight 2's are ———.
Five 2's are ———.	Nine 2's are ———.
Ten 2's are ———.	

COMBINATIONS

Our Number Friends are:

0 1 2 3 4 5 6 7 8 9

When we add any two numbers we call it *an addition combination*. There are 100 different addition combinations. A combination always has the same answer. One and 1 are always 2; 2 and 1 are always 3; 3 and 3 are always 6.

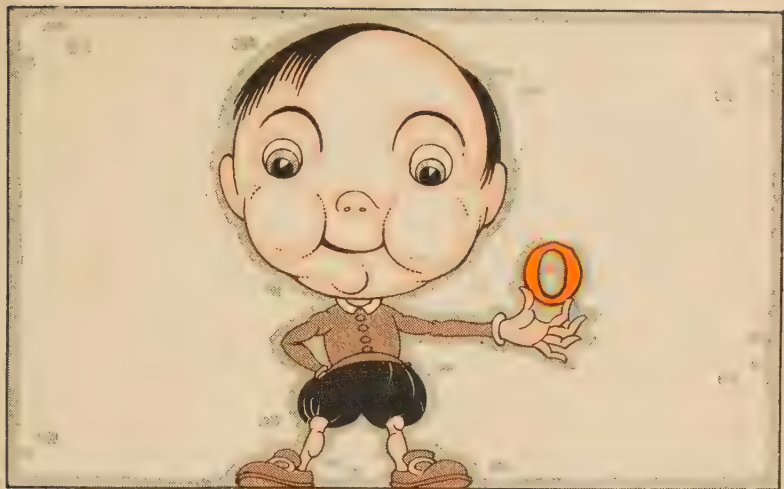
Six is the answer to three and three
On top of a mountain or under the sea.
If I stand on my head or climb a tree,
Six is the answer to three and three.

As you grow older you will use these 100 combinations every day — in school, at home, while you are playing, and when Mother sends you to the store. Your father and mother learned these when they were little and they use them now. We have had some of the combinations already. Read these and give the answers. Cover the answers and see how quickly you can say them. Do this till you are sure of every one.

3	2	4	3	7	4
<u>3</u>	<u>1</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>1</u>
6	3	8	4	8	5

5	1	9	2	1	8
<u>5</u>	<u>8</u>	<u>1</u>	<u>2</u>	<u>6</u>	<u>1</u>

When you can say all these answers quickly you are ready for harder work.



A TRICKY LITTLE FRIEND

This number, 0, is called *zero*.

It means *nothing*.

Some people call it *naught*.

You may add as many of these as you wish but the answer will still be 0.

If you add a zero to another number the number stays the same, because you have added nothing.

It will be the same if you take away a zero from another number.

Read these addition combinations and the sums:

7	6	1	9	5	8	0
0	0	0	0	0	0	0
7	6	1	9	5	8	0

Now tell the sums of these combinations:

0	2	3	0	0	4	0
4	0	0	9	6	0	5

1. If Tom has 5 apples and Mary has 0 apples, how many have they together?

2. If Mary has no apples and Tom gives her 0 apples, how many apples has she?

3. If we were playing a game and you did not win any points, what would your score be?

4. How much money have you, if you have 2 dimes and 0 pennies?

ADDITION

Find the sums of these numbers:

3	7	2	6	4	1
3	0	1	0	4	0

3	9	7	5	4	8
1	0	1	0	1	0

0	0	1	0	0	1
0	7	2	6	1	3

0	1	0	1	0	2
9	7	5	4	8	2

SOMETHING TO DO:

Write all the numbers from 50 to 100. Cross out 51 and 53. Keep on in this way till you get to 100. Read the numbers you have left. Try to say them without looking at your paper. This is more counting by 2's.



BIRTHDAYS

1927		DECEMBER					1927
SUN	MON	TUE	WED	THU	FRI	SAT	
				1	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	

Harry's birthday was on December fifth.

He was eight years old. He had a birthday party and a cake with eight candles.

Look at the calendar on page 52 and find out on what day of the week Harry's birthday came.

Bring a calendar from home.

Ask Mother to mark your birthday on the calendar.

SOMETHING TO DO:

1. Make a picture of your birthday month on a paper. When you copy your birthday date, write it in red crayola.

2. Draw a picture of your birthday cake. Put the right number of candles on it.

IN WHAT GRADE ARE YOU?

First

Third

Fifth

Seventh

Second

Fourth

Sixth

Eighth

Fill the blanks:

I am in the —— grade.

Last year I was in the —— grade.

Next year I will be in the —— grade.

In two years I will be in the —— grade.

My sister is in the —— grade.

My brother is in the —— grade.

SOMETHING TO DO:

Answer these questions:

1. What is your first name?
2. Who sits in the fourth seat in your row?
3. Have you had your sixth birthday?
4. If Sunday is the first day in the week, what is the third day in the week?
5. What is the fifth book in the row of books on the teacher's desk?
6. Look at the calendar. What day of the month is this?

WORDS TO USE IN NUMBER LESSONS

Read these words and phrases and see how many you know and can use. Learn the ones you do not know. They will help you to read *Number Friends*.

add	gave away	pint
all	half	pound
as many as	have left	price
bought	how many	quart
buy	how much	quarter
cent	inch	sell
count	less	sum
cost	measure	sold
difference	nickel	there are
dime	more than	together
dozen	paid	whole
equal	pair	yard
foot	pay	zero



DIFFERENCES

Nan had 5 little chickens, but 1 of them died. "How many have you now?" asked her uncle. "One and 4 make 5," thought Nan. So she said, "I have 4 chickens left."

Ted wanted to buy a 5 cent top and he had

only 3 cents. "How much do you need?" said his aunt. "Well," said Ted, "3 cents and 2 cents make 5 cents; so I need 2 cents."

Are you as clever as Ted and Nan? If you are, you will answer these questions:

1. If you had 5 cents and lost 2 cents, how many cents would you have left?

2. If you had 5 cookies and your brother ate 4, how many would you have left?

3. If you had 5 cents and wanted to buy a 10 cent picture book, how much money would you need?

4. If there are 6 children in your row at school, and 3 stayed at home on a rainy day, how many came to school?

5. If there were 8 eggs in the pantry and your mother used 4 in making a cake, how many eggs were left?

In all these problems we did not find the *sum* of the numbers, we found the *difference*.

When you find the difference between two numbers you are *subtracting*. We should write the examples like this:

$$\begin{array}{r} 9 \\ 1 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 5 \\ 4 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 10 \\ 5 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 6 \\ 3 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 6 \\ 4 \\ \hline 2 \end{array}$$

SOMETHING TO DO:

Cut the names of the days of the week from newspapers or calendars. Then lay each one in its right place on this page.

First day S

Second day -m

Third day T

Fourth day W

Fifth day F

Sixth day S

Seventh day SUN

BIG NUMBERS

In *Number Friends* you will find some very large pictures of the numbers.

They will help you find the sums when you add:

These big numbers are your tools.

When you put two numbers together you are *adding*.

The answer, as you know, is called the *sum*.

When you find the difference between two numbers you are *subtracting*.

The answer, as you know, is called the *difference*.

Sometimes the big number will help you to find the differences.

Look at the big numbers on pages 61 and 63.

Read the combinations that are printed on them.

THE BIG ONE

The little figures on the big 1 show the numbers that add to make 1.

Put in the missing number:

1 and — are 1,

0 and — are 1.



THE BIG TWO

The little figures on the big 2 show the numbers that add to make 2.

Put in the missing numbers:

2 and — are 2.

1 and — are 2.

0 and — are 2.



THE BIG THREE

The little figures on the big 3 show the numbers that add to make 3.

Put in the missing numbers:

2 and — are 3. 0 and — are 3.

3 and — are 3. 1 and — are 3.

ADDING AND SUBTRACTING

Find the sums:

0	1	0	1	2
1	0	2	1	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

0	3	1	2	0
0	0	2	1	3
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Find the differences:

1	1	2	3	2	3	3
0	1	0	0	1	1	2
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>



PROBLEMS

1. If you had 1 cent and your father gave you another, how many cents would you have?

2. If you have 2 cents and want to buy a ball that costs 5 cents, how many more cents must you have?

3. If you give your sister one of your 2 pennies, how many will you have left?

4. If you have 4 marbles and your brother has 4, how many have you together?

5. If you were carrying 6 marbles in a bag and 3 fell through a hole in the bag, how many would be left?

6. How much must you spend for a loaf of bread and a stick of candy if the loaf costs 8 cents and the candy costs 1 cent?

7. If you have 5 cents and want a ball that costs a dime, how many cents do you need?

ADDITION AND SUBTRACTION

Find the sums:

1	2	2	3	0	1
1	1	2	1	2	2
<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>

Find the differences:

2	3	3	1	4	4
1	2	1	1	2	3
<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>3</u>

QUESTIONS ABOUT MONEY

1. How many cents make a nickel?
2. How many nickels make a dime?
3. How many cents make a dime?
4. How many cents make a quarter?
5. How many dimes and nickels make a quarter.
6. How many cents make a dollar?

SEASONS

Look on page 69.

Read the name of each month.

How many months are in a year?

What is the first month of the year?

What is the last month of the year?

Count the pictures.

How many seasons are there?

What are the names of the seasons?

How many months are in each season?

Name them.

In what season is December?

In what season is March?

In what season is September?

In what season is July?

What is the third month of the year?

What is the tenth month?

What is the seventh month?

WINTER

DECEMBER
JANUARY
FEBRUARY



SPRING

MARCH
APRIL
MAY



SUMMER

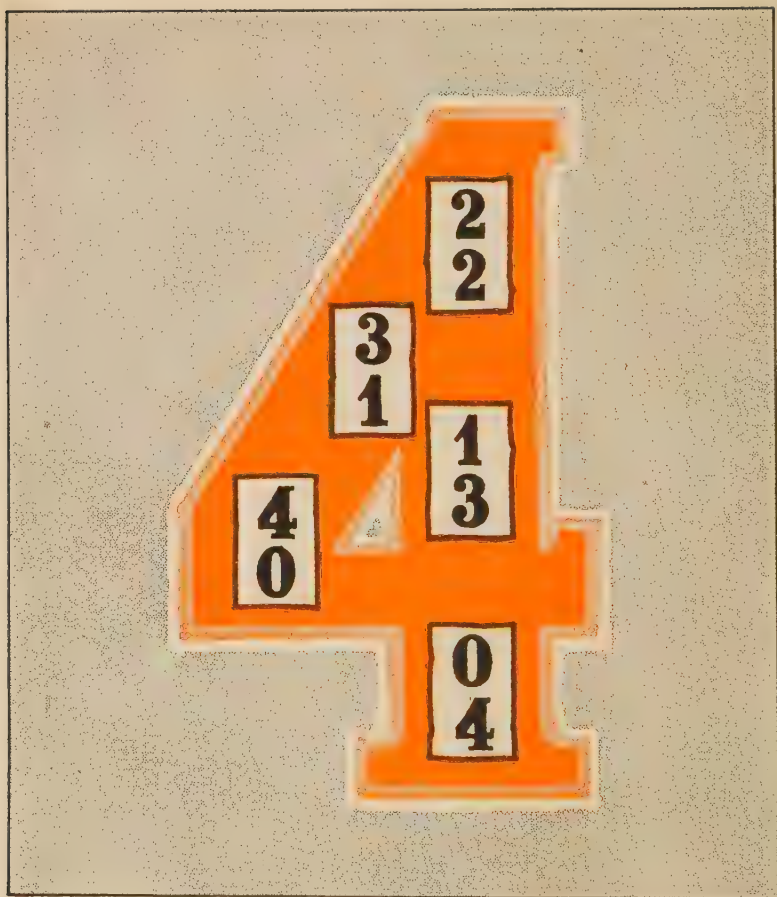
JUNE
JULY
AUGUST



AUTUMN

SEPTEMBER
OCTOBER
NOVEMBER





THE BIG FOUR

The little figures on the big 4 show the numbers that add to make 4.

Put in the missing numbers:

2 and — are 4.

3 and — are 4.

1 and — are 4.

0 and — are 4.

4 and — are 4.

ADDING AND SUBTRACTING

Find the sums:

3	2	4	1	0
1	2	0	3	4

1	1	1	0	4
1	2	2	3	4

Find the differences:

4	2	4	4	3	4
1	2	0	2	2	3

PROBLEMS

1. Mary's mother was making a cake. She needed 4 eggs. She had 2. She said, "Mary, please get me —— more eggs."

2. Mary went to the barn. She found 3 eggs in one nest and 1 egg in another. She said, "Mother, I have —— eggs."

3. Mary's mother gave her 3 cookies. Mary said, "I will eat 2 cookies and save —— for Tom."

4. Mary has 3 books and Tom has 2. Tom said, "You have —— more book than I have."

5. Mary read 3 pages to her mother and Tom read 3. Mother said to them, "You have read the —— pages very nicely."

6. Tom had 8 cents. He loaned 4 to Mary. He had —— cents left.

ADDING AND SUBTRACTING

Find the sums:

2	2	1	0	1	1
1	2	1	1	0	2
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2	0	2	3	3	4
0	3	2	0	1	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2	5	3	4	1	6
2	5	3	4	1	6
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Find the differences:

4	2	3	3	4	2
2	1	2	1	3	2
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

8	4	6	9	10	7
4	0	3	1	5	1
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>



THE BIG FIVE

The little figures on the big 5 show the numbers that add to make 5.

Put in the missing numbers:

4 and — are 5. 5 and — are 5.

1 and — are 5. 3 and — are 5.

2 and — are 5. 0 and — are 5.

ADDING AND SUBTRACTING

Give the sums:

3	2	4	1	5	0
2	3	1	4	0	5
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

5	5	5	5	5	5
3	2	1	4	0	5
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

You have had these combinations.

Give the sums:

1	3	2	4	5	5
2	1	3	1	0	1
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2	6	3	1	4	8
0	1	0	7	0	1

9	6	7	8	9	0
1	0	0	0	0	0

Give the differences:

1	6	7	8	4	9
1	1	1	1	1	1

3	3	4	2	6	8
2	1	2	1	3	4

PLAYING STORE

Look at the picture on page 77.

Tim and Joe are playing store.

1. Tim has 2 marbles and Joe has 3. They have —— marbles.

2. Joe's mother gave them each 2 cookies. They have —— cookies together.



3. Joe's father has a garden. He gave Joe 5 carrots. Tim has no garden so he could not bring any. They have —— carrots together.

4. Tim brought 4 apples. Joe brought 1. They have —— apples.

5. Tim brought a baseball and Joe brought his baseball and his brother's. They have —— baseballs for sale.

6. Tim brought 4 tin soldiers. Joe has none. They have —— tin soldiers.

7. Joe brought 3 boxes and Tim brought 2 boxes. They have —— boxes.

8. Tim brought 2 pencils and Joe brought 2 pencils. They have —— pencils together.

9. Joe brought 3 tops and Tim brought 2 tops. They have —— tops.

10. Joe's mother gave them each 3 cookies to eat. They had —— cookies.

PROBLEMS

If you need help, look at the big number 5 on page 74.

1. Fred wants a 5 cent marble. He has 3 cents. He will need —— cents more.

2. Mary's paper doll cost 5 cents. Sue's cost 3 cents. Mary's cost — cents more.

3. Tom had a nickel. He spent 3 cents for a toy boat. He has — cents left.

4. Tim is 2 years old. He will be 5 years old in — years.

5. Ann brought 2 cents to put in the bank. John brought 5 cents. John brought — cents more than Ann.

6. Aunt May gave Nellie 5 cookies. She ate 2 cookies. She took — home.

7. Joe wants an ice-cream cone. It costs 5 cents. He has 1 cent. He needs — cents more.

8. Our cat had 5 little kittens. We gave 1 to a friend. We have — kittens left.

9. Five cents is — cents more than 3 cents.

10. Mary Ann asked 5 girls to come to her party. Only 4 came. How many did not come?

COUNTING BY 5's

Count

5	10	15	20	25	30
35	40	45	50	55	60
65	70	75	80	85	90
95	100				

SOMETHING TO DO:

Count by 5's to 100 without looking at the book. Do it by writing the numbers.

BUYING A LUNCH

To-day we will buy our lunch.

We may choose from these:

Sandwich 5¢	Orange 5¢
Cake 5¢	Cocoa 5¢
Milk 5¢	Ice cream 5¢

The sign ¢ means "cents."



How many things are on this list?

May bought a sandwich and a glass of milk. How much did she pay?

Tom bought cocoa, cake, and an orange. How much did he pay?

Jane bought ice cream and cake. How much did she pay?

How much money would you need to buy all the things on the list?

SOMETHING TO DO:

Fill the blanks:

Two 5's are _____. Six 5's are _____.

Three 5's are _____. Seven 5's are _____.

Four 5's are _____. Eight 5's are _____.

Five 5's are _____. Nine 5's are _____.

Ten 5's are _____.

FINDING NUMBERS

Look at the chart on page 83.

Read the top row of numbers.

Read the bottom row of numbers.

What number is in the upper right hand corner?

What number is in the upper left hand corner?

What number is in the lower right hand corner?

What number is in the lower left hand corner?

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Read all the numbers in the right-hand row.

Read all the numbers in the left-hand row.

SOMETHING TO DO:

Take a square of paper and fold it so that it will have as many squares as the chart on this page. Then spread it out and write the numbers in the squares.



THE BIG SIX

The little figures on the big 6 show the numbers that add to make 6.

Put in the missing numbers:

5 and — are 6. 2 and — are 6.

3 and — are 6. 1 and — are 6.

4 and — are 6. 0 and — are 6.

6 and — are 6.

Give the sums:

4	3	2	5	1	6	0	5
2	3	4	1	5	0	6	1
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

6	6	6	6	6	6	6
2	4	3	1	5	0	6
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the missing numbers:

0	6	4	3	5	2	1
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
6	6	6	6	6	6	6

SOMETHING TO DO:

Give the sums:

3	2	4	6	5	2	4
2	2	1	0	5	1	4
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

FOOD SALE

Look at the picture on page 87 and fill these blanks.

1. John bought a doughnut and a piece of cake. They cost —— cents.

2. May bought an apple and a bun. They cost —— cents.

3. Sue bought a doughnut and a bun. They cost —— cents.

4. Fred bought 2 cookies. They cost —— cents.

5. Betty bought an ice-cream cone and a cookie. They cost —— cents.

6. Tom bought 2 apples. They cost —— cents.

7. Two ice-cream cones will cost —— cents.

8. Two doughnuts will cost —— cents.



9. An apple and a cookie will cost —— cents.

10. Two cookies and a doughnut will cost —— cents.

PROBLEMS

If you need help, look at the big figure 6 on page 84.

1. Billy has 6 loads of leaves to haul. He has hauled 3 loads. He has —— more to haul.

2. Tim sold 6 papers. Jim sold 4. Tim sold —— more papers than Jim.

3. A farmer set out 6 trees. One of them died. —— trees lived.

4. The teacher asked 6 children to stay to help her. Three were boys. —— were girls.

5. Sam caught 6 fish. Ned caught 4. Sam caught —— more than Ned.

6. Tom's old hen had 6 chickens. Three of them died. His hen has —— chickens.

7. Baby is 2 years old. She will go to school in —— years when she is 6.

8. Will has 6 marbles. Ned has 5. Will has — more than Ned.

9. Father gave Mary 6 cents. He gave Baby 1 cent. Mary has — more cents than Baby.

10. John has 6 rabbits. Two are white, and the rest are brown. He has — brown rabbits.

11. Six apples are — more than 1 apple.

12. Three apples are — less than 5 apples.

DOUBLES

Add these doubles:

1	2	3	4	5	6
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>

Here are some more doubles:

6	7	8	9	10
<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
12	14	16	18	20

Here is another way to write the doubles:

Two 1's are 2.

Two 6's are 12.

Two 2's are 4.

Two 7's are 14.

Two 3's are 6.

Two 8's are 16.

Two 4's are 8.

Two 9's are 18.

Two 5's are 10.

Two 10's are 20.

What do these toys cost?

1. Two balls at 5 cents each.
2. Two dolls at 4 cents each.
3. Two automobiles at 8 cents each.
4. Two boats at 7 cents each.
5. Two telephones at 9 cents each.
6. Two ducks at 3 cents each.
7. Two cows at 6 cents each.
8. Two tops at 10 cents each.
9. Two marbles at 2 cents each.
10. Two whistles at 1 cent each.

How many 6's are in 12?

How many 8's are in 16?

MORE COUNTING ¹

Write these numbers: twenty, twenty-five, forty, forty-three.

To turn 20 into 25 we put a 5 in place of the 0.

How do we turn 40 into 43?

How do we turn 30 into 36?

Write the number one hundred.

How shall we turn one hundred into one hundred twenty-five?

We write it like this, 125.

We put 25 in place of the two zeros.

How shall we write one hundred four.

We write it like this, 104.

We put 4 in place of the last zero.

SOMETHING TO DO:

Read these numbers: 124, 103, 112, 166, 142, 189, 118, 102, 101, 107, 111.

¹Counting may continue as far as the school course requires.



PROBLEMS

1. The postman brought 5 letters to our house to-day and 5 letters yesterday. He brought — letters in two days.

2. Mary Ann bought two sticks of candy for 2 cents each. She paid — cents for them.

3. Tim read 8 pages this morning and 8 pages this afternoon. He read —— pages.

4. Baby cried once this morning and once this afternoon. She cried —— times to-day.

5. The 2A Class missed 4 words to-day and the 2B Class 4 words. The whole second grade missed —— words.

6. Sue had 3 story books. Santa Claus brought her 3 more. She had —— books.

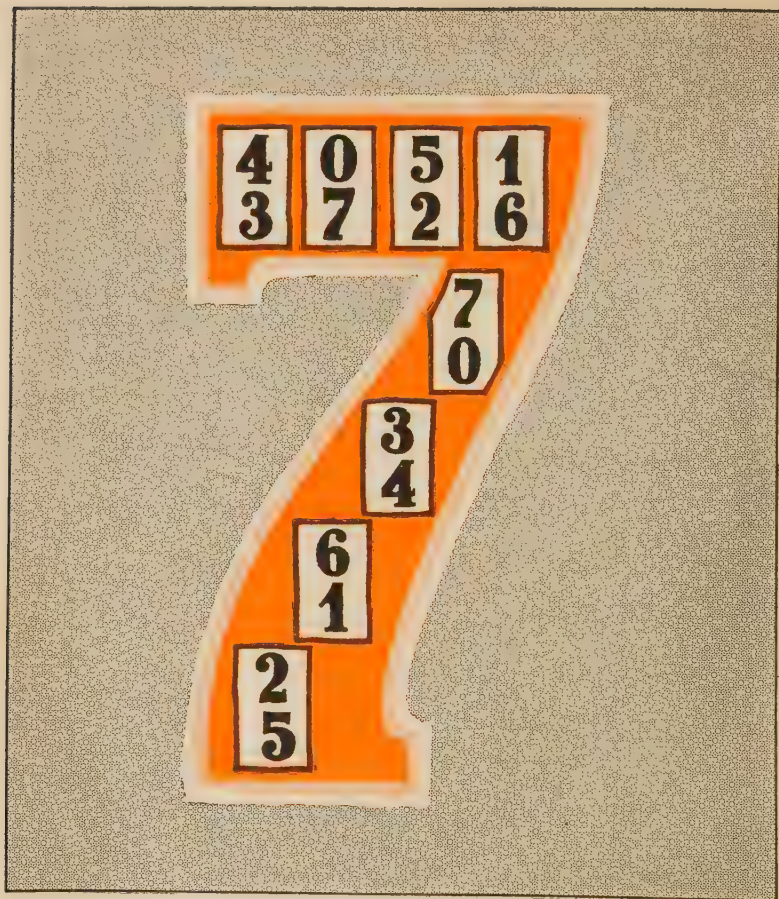
7. Tom spent 9 cents for a toy auto and 9 cents for a cart. He spent —— cents.

8. Dick earned 7 cents for his bank and Father gave him 7 cents. He had —— cents.

9. Billy walks 6 blocks to school and 6 blocks home again. Every school day he walks —— blocks.

10. Ned had 8 cents in his pocket and lost 4 cents. He has —— cents left.

11. May had 6 lemon drops and ate 3. She has —— left.



THE BIG SEVEN

The little figures on the big 7 show the numbers that add to make 7.

Put in the missing numbers:

5 and — are 7. 2 and — are 7.

6 and — are 7. 4 and — are 7.

1 and — are 7. 7 and — are 7.

3 and — are 7. 0 and — are 7.

Give the sums:

5	6	4	1	2	0	3	7
2	1	3	6	5	7	4	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the missing numbers:

2	7	6	5	4	0	1	3
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

7	7	7	7	7	7	7	7
7	2	5	4	3	1	6	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

What number added to 3 makes 7?

What number added to 5 makes 7?

What number added to 2 makes 7?



MOTHER'S WORKBASKET

1. In Mother's workbasket there are 4 spools of white thread and 3 spools of black thread. There are — spools of thread.

2. Mother has 5 small needles and 2 darning needles. She has —— needles.

3. One large pair of scissors and 1 small pair are in the basket. There are —— pairs of scissors.

4. There are 6 white buttons in the basket and 1 green one. There are —— buttons.

5. Mother has 2 white stockings to mend and 3 blue ones. She has —— stockings to mend.

6. There are 2 large thimbles and 2 small ones in the basket. There are —— thimbles.

7. Mother has 2 balls of white darning cotton, a ball of brown, and a ball of black. She has —— balls.

8. Baby took out the white balls of darning cotton. He left —— balls.

9. Mother has 2 spools of silk and 5 spools of cotton. She has —— spools.

PROBLEMS

If you need help look at the big number 7 on page 94.

1. There are 7 days in a week. We go to school 5 days. We stay at home ——— days.

2. Mary's doll is 7 inches tall. Sue's doll is 5 inches tall. Mary's doll is ——— inches taller than Sue's.

3. I saw 7 birds in the park. 5 were blue-birds and the rest were sparrows. There were ——— sparrows.

4. Ann went to her aunt's house to stay a week. She has been there 4 days. She has ——— days to stay.

5. Monday, Joe had 7 marbles. The next day he had only 5. He had lost ——— of them.

6. Tom wanted to sell a marble to Frank for 7 cents. Frank had only 5 cents. He must earn —— cents.

7. Betty made 7 popcorn balls for a party. Ruth made 2. Betty made —— more than Ruth.

8. Mother had 7 spools in her basket. She gave 4 to May to play with. She had —— left in the basket.

9. Billy is 4 years old. In —— years he will be 7.

10. Mother had 7 oranges. She gave 1 to John for lunch. She had —— left.

11. There were 7 pears on a tree. Tom and his brother each picked 3. There is —— pear left on the tree.

12. Mike had 7 papers to sell. He sold 5. He has —— left to sell.

13. Dick had 7 pencils. He sold 4 to Tom. He has —— pencils left.



PINTS AND QUARTS¹

How much is there in the small bottle?

How much is there in the large bottle?

Perhaps some one can bring a quart bottle to school.

Perhaps some one can bring a pint bottle.

Fill the quart bottle with water.

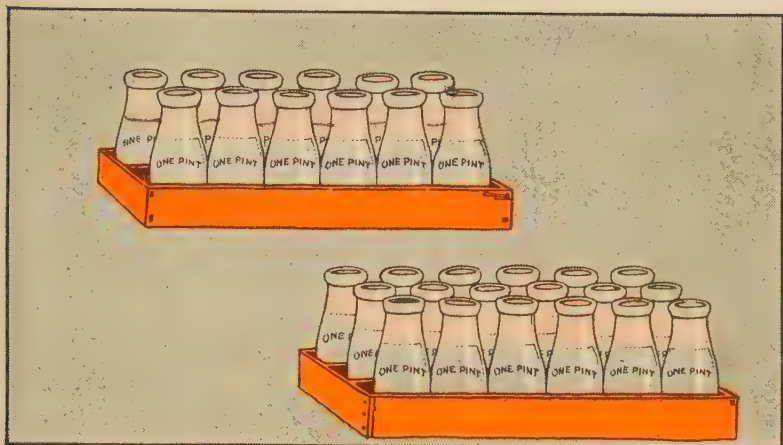
Pour the water into the pint bottles.

How many pint bottles can you fill from one quart bottle?

¹The gallon may be taught by measuring 4 quarts of liquid into a pail or measure if the course of study requires the gallon in this grade.

How many pints make a quart?

Then two pints of milk are the same as 1 quart of milk.



The bottles in the picture each hold a pint.

Touch 2 bottles in the picture and say,

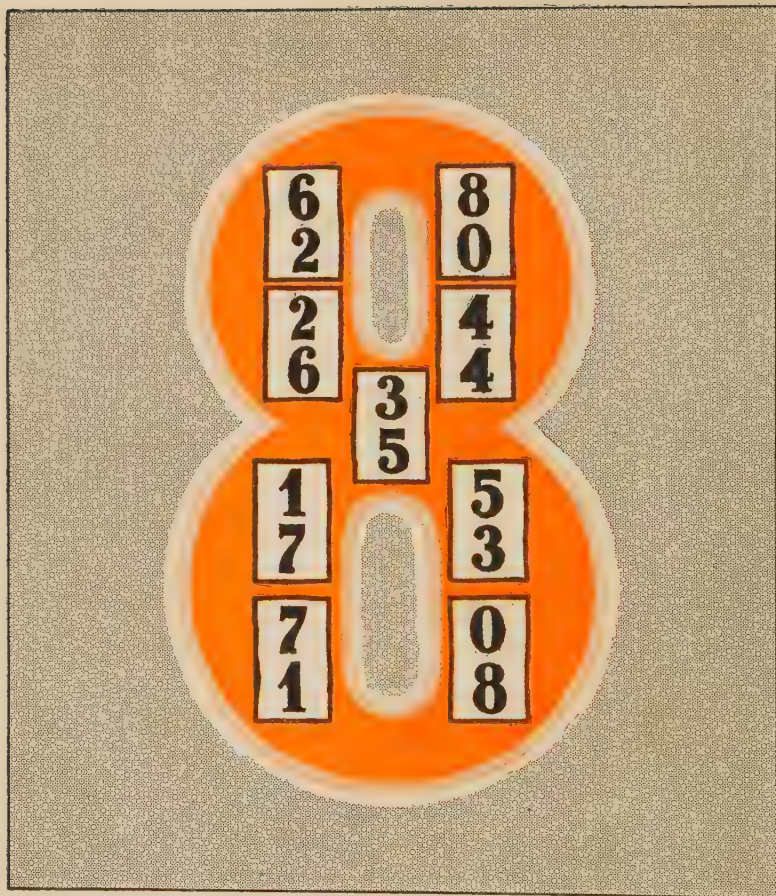
“One quart.”

Touch 2 more and say, “Two quarts.”

Touch 2 more and say, “Three quarts.”

Touch 2 more and say, “—— quarts.”

How many quarts of milk are in each box?



THE BIG EIGHT

The little figures on the big 8 show the numbers that add to make 8.

Add something to 1 that will make 8.

Add something to 2 that will make 8.

Add something to 3 that will make 8.

Add something to 4 that will make 8.

Add something to 5 that will make 8.

Add something to 6 that will make 8.

Add something to 7 that will make 8.

How much are 0 and 8?

Give the sums:

6	4	7	5	2	1	3	8	0
<u>2</u>	<u>4</u>	<u>1</u>	<u>3</u>	<u>6</u>	<u>7</u>	<u>5</u>	<u>0</u>	<u>8</u>

Give the missing numbers:

3	2	4	8	7	5	0	1	6
<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>

Give the differences:

8	8	8	8	8	8	8	8	8
<u>2</u>	<u>0</u>	<u>1</u>	<u>6</u>	<u>7</u>	<u>3</u>	<u>5</u>	<u>4</u>	<u>8</u>

Can you say the sums of these in 1 minute?

2	3	4	5	2	4	2
<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>5</u>	<u>1</u>	<u>4</u>

6	1	3	1	2	1	3
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>0</u>	<u>1</u>	<u>0</u>

4	3	4	5	6	7	1
<u>0</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>6</u>

PINTS AND QUARTS

1. How many pints of milk are in 1 quart?
2. How many pints are in 2 quarts?
3. How many pints are in 3 quarts?
4. How many quarts are 4 pints?
5. How many quarts are 10 pints?
6. How many pints are in 6 quarts?
7. How many pints are in 5 quarts?

MAKING CHANGE

The children were playing store. Dick was the clerk. Tell how much change he gave.

1. Nell had 10 cents. She bought an apple for 5 cents. Her change was —— cents.

2. Tom had 5 cents. He bought 2 lollipops at 2 cents apiece. His change was —— cents.

3. May had 10 cents. She bought a ball for 6 cents. Her change was —— cents.

4. Billy had 6 cents. He bought a ball for 6 cents. His change was —— cents.

5. Ann had 5 cents. She bought 4 candies at 1 cent apiece. Her change was —— cents.

6. Ted had 10 cents. He bought a note book for 8 cents. His change was —— cents.

7. Norman had 15 cents. He bought a pencil box for 14 cents. His change was —— cents.

IN THE TOY SHOP

The children had a toy rummage sale. All the toys were very cheap. Look on page 107 for the prices.

1. Mary bought a telephone and a football. They cost —— cents.

2. John bought a pig and a duck. They cost —— cents.

3. Joe bought a football and a ship. They cost —— cents.

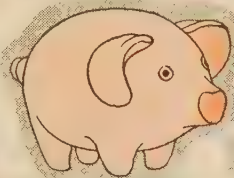
4. Ann bought a cat and a doll. They cost —— cents.

5. May bought an automobile and a cat. They cost —— cents.

6. Tom bought a horse and a ball. They cost —— cents.

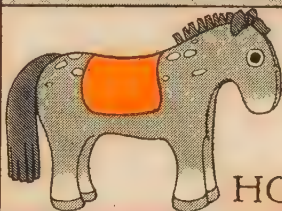
7. Sue bought 2 dolls. They cost —— cents.

AUTO 6¢



3¢
PIG

CAT
2¢

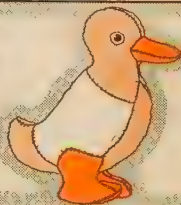


7¢
HORSE



DOLL
4¢

DUCK
1¢



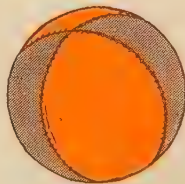
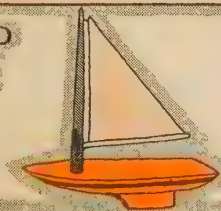
FOOTBALL 5¢



TELEPHONE
3¢



SHIP
2¢



BALL
1¢

8. Bob bought a ship, a football, and a ball. They cost —— cents.

9. Tim bought 3 balls. They cost —— cents.

10. Billy bought a pig, a cat, and a duck. They cost —— cents.

PROBLEMS

If you need help, look at the big number 8 on page 102.

1. I had 8 roses on my bush. The wind broke off 5 of them. I have —— roses left.

2. Mary's brother is 8 years old. Her sister is 4 years old. Her brother is —— years older than her sister.

3. Tom has 3 marbles. Dan has 8. Dan has —— more than Tom.

4. Nan bought 8 car tickets. She used 3 of them. She has —— car tickets left.

5. Father's car will seat 8, counting the baby. There are 4 in our family. We can invite —— friends to ride.

6. I had 8 little ducks. The cat caught 3 of them. I have —— left.

7. Tim earned 8 cents. He put 5 cents in the bank. He has —— cents left to spend.

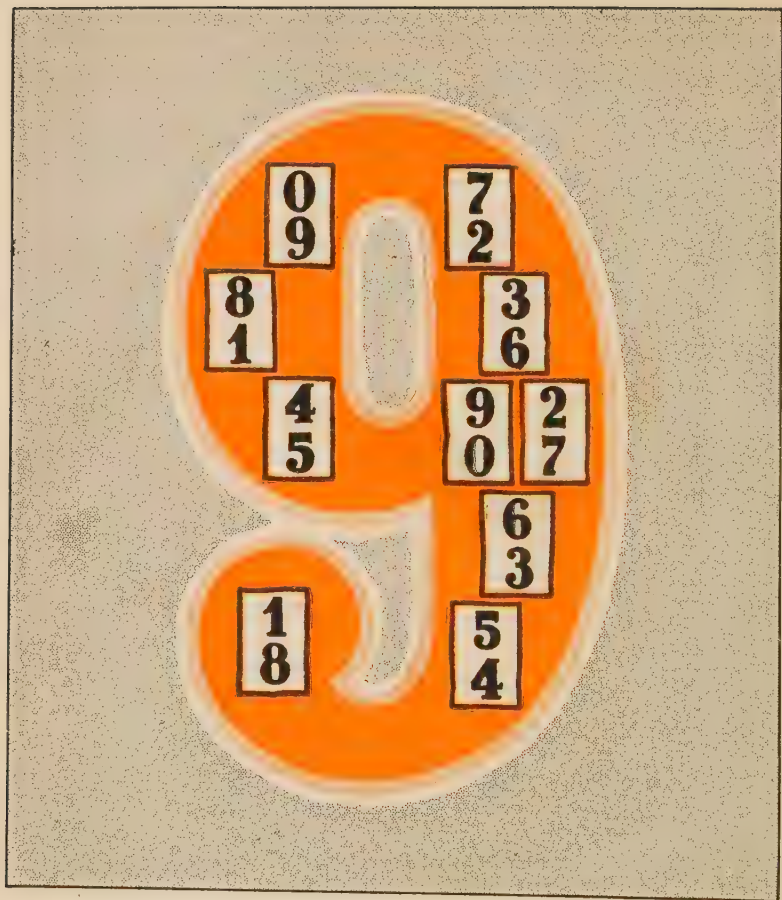
8. Mother gave me 8 pictures to put in my book. I pasted 6 of them. I have —— more to paste.

9. There are 8 lessons in my book. I have read 7 of them. I have —— lessons to read.

10. Dick is 8 years old. May is 5 years old. Dick is —— years older than May.

11. Tom earned 8 cents. John earned 2 cents. Tom earned —— more than John.

12. May and her little sister were picking strawberries. May picked 8 quarts and her sister picked 6 quarts. May picked —— more quarts than her sister.



THE BIG NINE

The little figures on the big 9 show the numbers that add to make 9.

Put in the missing numbers:

0 and — are 9. 9 and — are 9.

1 and — are 9. 8 and — are 9.

2 and — are 9. 7 and — are 9.

3 and — are 9. 6 and — are 9.

4 and — are 9. 5 and — are 9.

Give the sums:

5	6	7	8	3
4	3	2	1	6
—	—	—	—	—

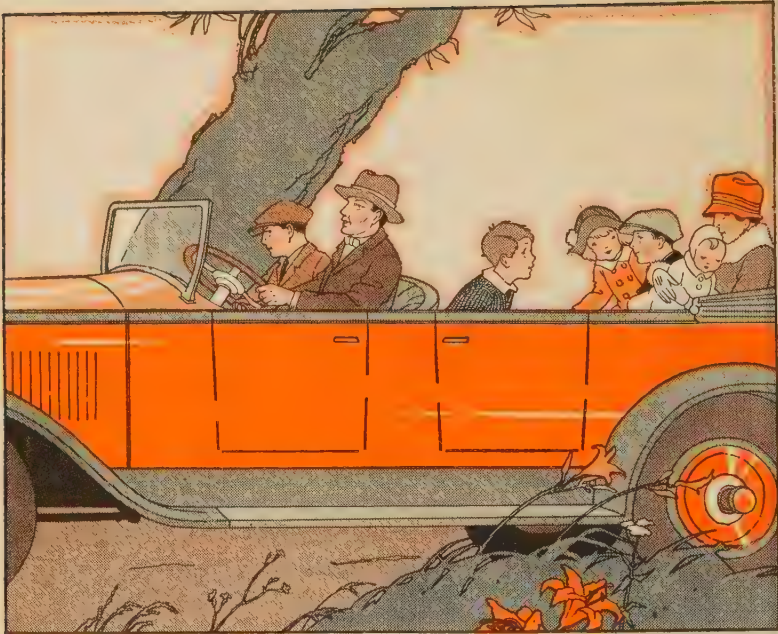
1	9	4	0	2
8	0	5	9	7
—	—	—	—	—

Give the differences:

9	9	9	9	9
4	6	3	7	1
—	—	—	—	—

9	9	9	9	9
2	5	8	9	0
—	—	—	—	—

Make up some problems about 9.



A RIDE

1. Father and Bob sat in the front seat. Mother, Dan, Nell, Sam, and Jane sat in the back seat. There were —— people in the car.
2. There were —— girls in the car.
3. There were —— boys in the car.

4. Father gave each child a dime. He gave them —— cents altogether.

5. They rode 4 miles to a farm, and then 4 miles back. They rode —— miles.

6. Sam saw 4 robins. Jane saw 5 other robins. They saw —— robins.

7. They saw 6 farm houses on one side of the road and 3 farm houses on the other side. They saw —— farm houses.

8. Bob saw 2 butterflies. Nell saw 3 other butterflies. They saw —— butterflies.

9. As they passed a pond they saw 2 big ducks and 7 little ducks. They saw —— ducks.

10. They passed 8 cars on the way out and only 1 car on the way back. They passed —— cars.

11. Bob brought 9 pears from the farm. He gave the others each 1 pear. He had —— pears left.

PROBLEMS

If you need help, look at the big 9 on page 110.

1. Jane looked at two paper dolls. The larger one cost 9 cents, the other cost 2 cents. The larger one cost — cents more than the other one.

2. John had 9 cents. He spent 3 cents for a top. He had — cents left.

3. Sue had 9 little chickens. When she went to the coop to feed them, there were only 6. — chickens were gone.

4. John went to the barn and got 9 eggs. On the way home he fell down and broke some. When he got up he counted the eggs. He had only 4. He had broken — eggs.

5. Henry had 9 peanuts. He ate 1 peanut. He had — left.

6. Tom's corn is 9 inches high. Tim's is only 7 inches high. Tom's is —— inches higher than Tim's.

7. Jack went to Grandpa's to stay 9 days. He has been there a week. He has —— days left to stay.

8. Mike had 9 papers to sell. He has 1 paper left. He has sold —— papers.

9. There were 9 children in the first row in Tom's class. To-day there are only 5. There are —— children absent.

10. There were 9 names on the board. The teacher erased 2 names. Then there were —— names.

THINGS TO DO

1. Touch the largest chair in the room.

2. Run to the right-hand corner at the front of the room.

3. Run to the left-hand corner at the front of the room.

4. Find the largest picture on the wall.

5. Find the smallest picture on the wall.

6. Touch your left eye.

7. Touch the back of your teacher's desk.

8. Touch the window that is nearest to you.

9. Touch the lower right-hand corner of your desk.

10. Face the back of the room and run to the left-hand corner.

BEAN-BAG GAME

Make a square like the one on page 117 but much larger. You may make it on a large paper or draw it with soft chalk on the floor. The big square should be three feet, or one yard, each way. Your teacher will show you how to measure with a yard stick. If you

6	9	7
2	8	5
4	1	3

use a paper, fasten the paper to the floor with thumb tacks.

Draw squares like those in the picture.

Each small square is one foot each way.

Find the middle of one side of the big square. Measure 3 yards away from it and make a mark. Stand at this mark to throw.

Have a bean bag ready.

Choose two captains. Let them choose sides.

Each player in turn may run to the cross and toss the bean bag at a number. If you hit a number, double it. If you do this right, you score one for your team.

If you can not hit a number or can not double it, your score is 0.

Keep a score like this:

Team A	1	1	0	1	1	1	0	5
Team B	0	1	1	1	1	0	0	4

SOMETHING TO DO:

Write these in figures:

One hundred thirty-three.

One hundred six.

One hundred seventeen.

One hundred forty.

SOME THINGS THAT WE FIND IN A GROCERY STORE

How many of these words do you know?

Learn the ones you do not know.

sugar	coffee	butter
eggs	milk	cheese
prunes	bread	corn
peas	beans	lemons
apples	oranges	milk
cream	potatoes	pickles
olives ✕	celery	cocoa
pepper	crackers	candy
salt	flour	lard ✕
syrup	matches ✕	tea
soup	jam	rice

1. How many words are in each row?
2. How many words are in the 3 rows?



THE BIG TEN

The little figures on the big 10 show numbers that add to make 10.

Write the numbers from 1 to 9.

Under these numbers write the numbers from 9 to 1.

1	2	3	4	5	6	7	8	9
9	8	7	6	5	4	3	2	1
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Add them. What is the answer to every one.

Close your book and tell nine ways to make 10.

Give the sums:

4	5	7	9	8
6	5	3	1	2
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2	6	3	1
8	4	7	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>

How much are 10 and 0?

How much are 0 and 10?

Give the differences:

10	10	10	10	10	10
<u>1</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>7</u>	<u>10</u>

10	10	10	10	10
<u>9</u>	<u>2</u>	<u>8</u>	<u>0</u>	<u>6</u>

EARNING MONEY

1. James earned 5 cents cutting kindling and 5 cents piling wood. He has —— cents.

2. May earned 2 cents a day washing dishes. In 5 days she earned —— cents.

3. Mary earned 5 cents taking care of Mrs. Brown's baby, and 3 cents sweeping the front walk. She has —— cents.

4. Carl earned 6 cents raking leaves and 4 cents going to the store. He has —— cents.

5. Frank earned 7 cents pulling weeds and Grandma gave him 3 cents. He has —— cents.

6. Kate earned 3 cents setting the table and 2 cents wiping dishes. She has —— cents.

7. Mary Ann is 7 years old to-day. Her father gave her 1 penny for each year. She has —— cents.

8. Mother gave John 2 nickels for his birthday. He has —— cents.

9. Betty had 2 cents and she earned 8 cents dusting. She has —— cents.

10. Jack had 5 cents, he earned 4 cents, and Mother gave him a penny. He has —— cents.

PROBLEMS

If you need help, look at the big number 10 on page 120.

1. Ten children were playing a number game. Seven missed and had to sit down. There were —— children left in the game.



2. We are going to have 10 people at our house for dinner. We have only 8 dining room chairs. We must borrow —— chairs.

3. Miss Mary has 10 pictures. She put up 2 to-day. She has —— pictures left.

4. A teacher has 6 books on her table and 10 on her desk. She has —— less books on the table than there are on the desk.

5. May had 10 cents. She bought an orange for 5 cents. She has —— cents left.

6. Jane bought a 10 cent loaf of bread and a 4 cent box of candy. The bread cost —— cents more than the candy.

7. We had 10 trees in our school yard. We needed more space for play. Three trees were cut down. —— trees were left.

8. At our library table there is room for 10 children. Nine children are sitting there now. There is room for —— more.

9. Tom had 10 cents. He gave Harry 5 cents. He has —— cents left.

10. Jane had 10 cents and lost 1. She has —— cents left.

11. Ann had 10 buttons on her dress but 4 came off. She has —— left.

PLAYING STORE

Each child may play that he goes shopping with 10 cents.

Look at page 127. Here is our grocery store. We can play that we buy things from this picture store or we can make a play store.

If we can not have real things for our play store, we can cut out pictures of groceries and paste little stand-ups on the back of them. We can fix our goods on counters and shelves made from boxes.

We shall need toy money.

We shall need clerks and a delivery boy. We may use a little wagon for his automobile. Some people will carry their groceries home themselves.

Be sure to get the right change when you pay the clerk. Your change will be the *difference*.



ence between your 10 cents and the cost of what you buy. If you buy a 5 cent orange, your change will be 5 cents. If you buy a 3 cent apple, your change will be 7 cents.

A REVIEW OF DIFFERENCES

Before we really start playing store, let us review some differences. See how many of these you can give in 2 minutes. Remember that when you find differences, you subtract.

1	5	4	8	7	2	10
<u>1</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>2</u>	<u>8</u>

9	6	4	5	7	10	6
<u>8</u>	<u>0</u>	<u>4</u>	<u>5</u>	<u>0</u>	<u>7</u>	<u>5</u>

3	10	8	6	10	7	9
<u>3</u>	<u>4</u>	<u>7</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>0</u>

10	3	9	8	4	2	10
<u>9</u>	<u>0</u>	<u>8</u>	<u>8</u>	<u>0</u>	<u>1</u>	<u>5</u>

9	10	5	6	3	8	4
<u>9</u>	<u>3</u>	<u>0</u>	<u>5</u>	<u>2</u>	<u>0</u>	<u>3</u>

6	2	10	4	9	8	10
<u>5</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>0</u>	<u>7</u>	<u>1</u>

PLAYING STORE: WEIGHING

To-day we will have fun weighing things that we sell in our store. We need a table, scales, a cup, paper bags, a pencil, and some make-believe money. We also need 4 big bags of sand. We will play that one bag is rice, one is sugar, one is beans, and one is oatmeal.

We must choose a few clerks to stand behind the counter and sell things. The other children may be customers and buy rice, sugar, beans, and oatmeal.



Here is the price list:

Sugar	4 cents a pound
Beans	6 cents a pound
Oatmeal	2 cents a pound
Rice	4 cents a pound

Mary plays that she is Mrs. Brown. The

clerk says, "Good morning, Mrs. Brown, what will you have to-day?"

Mrs. Brown says, "Two pounds of sugar, please."

The clerk weighs the sugar and puts it in a paper bag. Mrs. Brown gives the clerk 10 cents. How much change should he give her?

We must not ask for more than our 10 cents will buy and we must be sure that the clerk gives us correct change.

REVIEW PROBLEMS

1. I ran 2 errands for Mother this morning and 2 this afternoon. I ran —— errands.

2. I paid 5 cents for a pencil and 5 cents for a bottle. I paid —— cents for the two.

3. Joe wants to buy a toy boat. It costs 10 cents. He has 3 cents. He must earn —— cents.

4. I practiced 2 hours last week and 3 hours this week. I have practiced —— hours.

5. I had 16 problems to do. I have done 8 of them. I have —— problems to do.

6. Tom is 7 years old. Sister is 2 years younger. Sister is —— years old.

7. Father bought 4 gallons of gasoline on Monday and 5 gallons on Wednesday. He bought —— gallons.

8. John had 8 pieces of candy. He gave 5 pieces to the boys. He has —— pieces left for himself.

9. I read 4 pages this morning and 5 pages this afternoon. I read —— pages.

10. There were 4 roses on my bush. Mother picked 3 of them for the table. There is —— rose on the bush.

11. Helen picked 9 quarts of berries and I picked 7 quarts. She picked —— quarts more than I picked.

CAR TIME

A street car goes by our house every ten minutes. If it goes at 9 o'clock, the next car would go at — minutes after 9 o'clock.

The next would be — minutes after 9 o'clock.

Make a time table telling at just what times the car goes by our house from 9 to 10 o'clock.

Time Table

9.10

9.20

Make a time table for cars that run every 5 minutes. Start the time table at 1 o'clock.

ADDITION CHART

Can you give the sums in 5 minutes?

1	1	0	6	2	0	4	4
<u>1</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>1</u>

1	2	0	1	0	3	3	0
<u>7</u>	<u>1</u>	<u>2</u>	<u>6</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>4</u>

1	1	1	5	5	1	7	0
<u>3</u>	<u>5</u>	<u>0</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>1</u>	<u>5</u>

8	9	6	1	0	7	1	8
<u>1</u>	<u>1</u>	<u>6</u>	<u>9</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>8</u>

0	0	2	5	0	2	3	8
<u>7</u>	<u>8</u>	<u>3</u>	<u>2</u>	<u>9</u>	<u>4</u>	<u>6</u>	<u>0</u>

9	4	2	3	3	3	2	9
<u>9</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>4</u>	<u>0</u>	<u>5</u>	<u>0</u>

3	2	4	6	6	2	4	3
<u>5</u>	<u>6</u>	<u>2</u>	<u>3</u>	<u>0</u>	<u>7</u>	<u>3</u>	<u>7</u>

5	6	2	7	7	4	6	8
<u>0</u>	<u>2</u>	<u>8</u>	<u>0</u>	<u>2</u>	<u>5</u>	<u>4</u>	<u>2</u>

5	4	7	5
<u>3</u>	<u>6</u>	<u>3</u>	<u>4</u>

ADDING TEN

Tom's brother is sixteen years old. "Teen" means 10. So sixteen means 10 and what number?

How much are—

10 and 4?

10 and 6?

10 and 7?

10 and 8?

10 and 9?

You know that 10 and 1 are 11, and that 10

and 2 are 12. What number does 10 and 3 make? 10 and 5?

Read these examples and the sums:

10	10	10	10	10	10	10
6	3	7	4	9	8	5
<u>16</u>	<u>13</u>	<u>17</u>	<u>14</u>	<u>19</u>	<u>18</u>	<u>15</u>
6	3	7	4	9	8	5
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Cover the answers and see if you can say them.

SUBTRACTION CHART

Can you give the differences in 5 minutes?

2	5	1	7	4	0	8	5
<u>1</u>	<u>1</u>	<u>0</u>	<u>6</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>4</u>
8	3	2	7	3	4	6	4
<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>3</u>	<u>0</u>

4	6	1	6	10	3	8	5
<u>1</u>	<u>1</u>	<u>1</u>	<u>5</u>	<u>5</u>	<u>1</u>	<u>7</u>	<u>0</u>

9	10	12	10	6	14	9	16
<u>8</u>	<u>9</u>	<u>6</u>	<u>1</u>	<u>0</u>	<u>7</u>	<u>1</u>	<u>8</u>

7	8	5	7	9	6	9	8
<u>0</u>	<u>0</u>	<u>2</u>	<u>5</u>	<u>0</u>	<u>2</u>	<u>3</u>	<u>0</u>

18	4	2	5	7	3	7	9
<u>9</u>	<u>0</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>9</u>

8	8	6	9	6	9	7	10
<u>3</u>	<u>2</u>	<u>4</u>	<u>6</u>	<u>6</u>	<u>2</u>	<u>4</u>	<u>3</u>

5	10	8	7	9	9	10	10
<u>5</u>	<u>2</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>4</u>	<u>6</u>	<u>8</u>

8	10	10	9
<u>5</u>	<u>4</u>	<u>7</u>	<u>5</u>

BUYING THINGS

Here are the names of some things we buy in stores:

shoes	rice	garters
tea	gloves	coffee
butter	cheese	stockings
mittens	meat	rubbers

Which do we buy by the pound?

Which do we buy by the pair?

SOMETHING TO DO:

Take a piece of paper and draw lines like these:

Pair	Pound

Write the names of things that we buy by the pair in the first column and of things that we buy by the pound in the second column. Take the names from the list at the top of the page. You may put in some other names if you can.

FOR SHARP EYES

Which is larger, you or a baby?

Which is taller, a house or a fence?

Which is smaller, a butterfly or a bird?

Which is wider, your desk or the teacher's desk?

Which is longer, a yard of ribbon or half a yard?

Which is bigger, an orange or a pumpkin?

Which is nearer our school, the park or a grocery store?

Which is less, a dime or a nickel?

Which is lower, a kindergarten chair or the teacher's chair?

Which is shorter, a boy's hair or a girl's hair?

Which is higher, the door or the window?

Which is farther away, your house or the public library?

Which is heavier, a bun or a loaf of bread?

Which is lighter, a ball or a feather?

Which is narrower, the sidewalk or the street?

HOW MUCH MONEY?

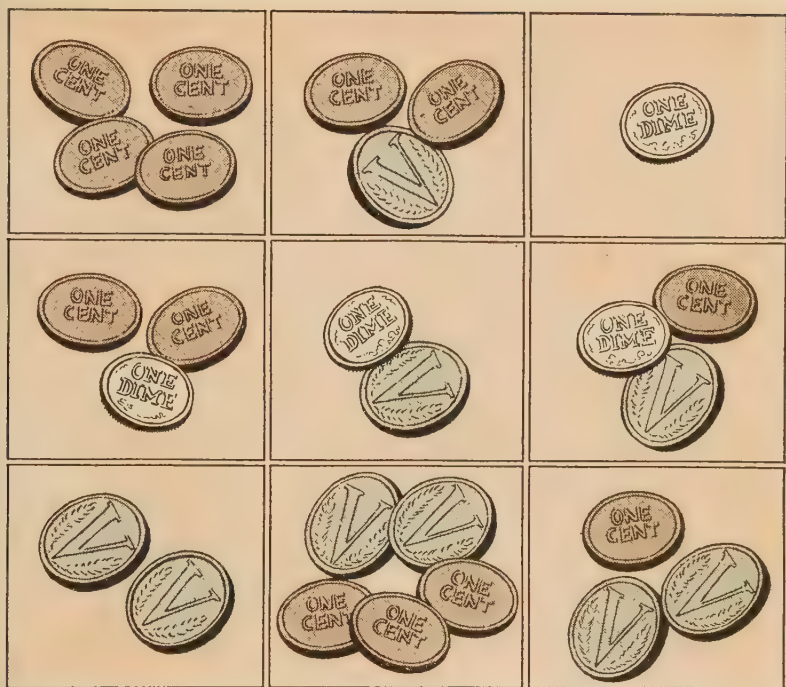
There are 9 piles of money in the picture on page 141.

Look at each pile

Count it.

Which two piles are worth the same amount?

Now point to each pile. See how quickly



you can tell how many cents it is worth.

When you go home, ask Father to hold real money in his hand and see how quickly you can count it. Start with pennies. Next take pennies and nickels. Then take pennies, nickels, and dimes.



BANK DAY

This is Bank Day at school.

The children have saved their money and are going to put it in the bank.

Tell how many cents each child has.

1. May has a dime.

2. Mary has a dime and 2 pennies.
3. John has a nickel and 2 pennies.
4. Will has a dime and a nickel.
5. Sam has 2 dimes.
6. Tom has 2 nickels.
7. Jim has 2 nickels and 2 pennies.
8. Tim has a dime, a nickel, and a penny.
9. Jane has 2 dimes and a penny.
10. Nan has 2 dimes and a penny.
11. Dick has 3 dimes and 1 penny.
12. Nell has a quarter.

REVIEW

Give the sums:

4	5	3	4	7	6	3	4
6	4	2	3	3	2	7	5

6	8	3	6	2	9	3	2
3	2	4	4	8	0	6	3



THE BIG ELEVEN

The little figures on the big 11 show numbers that add to make 11.

Put in the missing numbers:

7 and — are 11.	4 and — are 11.
5 and — are 11.	6 and — are 11.
8 and — are 11.	3 and — are 11.
9 and — are 11.	2 and — are 11.

Give the sums:

5	8	4	3	6	9	7	2
<u>6</u>	<u>3</u>	<u>7</u>	<u>8</u>	<u>5</u>	<u>2</u>	<u>4</u>	<u>9</u>

Give the differences:

11	11	11	11	11	11	11	11
<u>8</u>	<u>4</u>	<u>2</u>	<u>9</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>

Here are some other combinations that make 11:

11	0	10	1
<u>0</u>	<u>11</u>	<u>1</u>	<u>10</u>

Give the differences:

11	11	11	11
<u>1</u>	<u>0</u>	<u>10</u>	<u>11</u>

AT THE PARK

1. The children are playing in the park. There are 6 girls and 5 boys. There are —— children.

2. Amy and Jane brought their ropes. Amy jumped 7 times and Jane jumped 4. Together they jumped —— times.

3. Claude and Sam brought their fish lines. Claude caught 4 fish and Sam caught 6. They caught —— fish.

4. Mike bought 5 cents worth of peanuts and Roy bought 5 cents worth of peanuts. They spent —— cents for peanuts.

5. Mike threw 5 peanuts to the bears and Roy threw 4. They threw —— peanuts.

6. Dan gave the little children a swing. He swung Sue 9 times and Baby 2 times. He swung them both —— times.

7. The children saw 4 canoes and 2 row boats on the lake. They saw —— boats.

8. Norman had 6 cents to spend and Jean had 5 cents. They had —— cents to spend.

9. The children saw 5 monkeys in one cage and 3 in another cage. They saw —— monkeys.

10. While they were eating lunch, Claude saw 3 squirrels and Jane saw 2 more. They saw —— squirrels.

PROBLEMS

If you need help, look at the big number 11 on page 144.

1. There are 11 books on the table. The teacher put 4 of them on her desk. There are —— books left on the table.

2. We have 11 dining-room chairs. Our neighbor borrowed 5 when she had company. We had —— chairs left.

3. We had 11 cherries on our little tree. Mother picked 9. There are —— cherries left.

4. We had 11 lights burning. Mother turned out 7. There were —— lights still burning.

5. I had 11 golf balls. I lost 3. I have —— balls left.

6. There are 11 families in our street. 2 families moved away. There are —— families left.

7. Tom had 11 cents. He lost a nickel. He has —— cents left.

8. A man in the store had 11 big clocks. He sold 3 of them. He had —— left.

9. There were 11 dandelions growing on our lawn. Father dug up 6 of them. There are —— left on the lawn.

10. There are 11 windows on one side of our schoolhouse. The boys broke 2 playing ball. There are —— whole windows.



AT THE POST OFFICE

A stamp for a letter going anywhere in the United States costs 2 cents.

Father has 9 letters to mail His stamps will cost ——— cents.

Mother has 5 letters to mail. Her stamps will cost ——— cents.

Tom has 2 letters to mail. His stamps will cost —— cents.

Mary has 1 letter to mail. Her stamp will cost —— cents.

Ann has 7 letters to mail. Her stamps will cost —— cents.

Dan has 4 letters to mail. His stamps will cost —— cents.

Mrs. Smith has 3 letters to mail. Her stamps will cost —— cents.

Harry has 8 letters to mail. His stamps will cost —— cents.

Nell has 10 letters to mail. Her stamps will cost —— cents.

Mr. Green has 12 letters to mail. His stamps will cost —— cents.

Dick has 11 letters to mail. His stamps will cost —— cents.

May has 6 letters to mail. Her stamps will cost —— cents.

CAN YOU FIND IT?

Turn to page 146.

Read the first line.

Read the last word in the second line.

Read the first word in the third line.

Read the third from the last line.

Read the next to the last word in the fifth line.

Read the third word in the first line.

Read the last line.

Read the first word in the next to the last line.

Read the second word in the last line.

Read the fourth word in the first line.

Read the sixth line.

Read the first word in the seventh line.

Read the first number in the lesson.

Read the last number on the page.

THE TOY SHOP

How much must I pay for —

1. A 5 cent Jack-in-the-box and a 2 cent clown?
2. A 3 cent flower-pot and a 4 cent elephant?
3. A 6 cent doll and a 5 cent bell?
4. A 5 cent set of dishes and a 5 cent doll dress?
5. A 7 cent book and a 4 cent frog?
6. A 7 cent ball and a 2 cent chair?
7. A 5 cent duck and a 3 cent pig?
8. A 6 cent dog and a 6 cent telephone?
9. A 4 cent flag and a 3 cent doll?
10. A 3 cent top and a 5 cent toy drum?
11. A 6 cent tin pail and a 3 cent balloon?
12. A 3 cent marble and a 1 cent bell?
13. A 5 cent Teddy bear and a 3 cent pig?

14. A 6 cent baby doll and a 3 cent balloon?
15. A 4 cent elephant and a 2 cent clown?
16. A 4 cent flag and a 4 cent frog?

COLUMN ADDITION

John has 1 book, Sue has 1 book, and Tom has 1 book. Together they have 3 books

Figures say it this way:

$$\begin{array}{r} 1 \\ 1 \\ 1 \\ \hline 3 \end{array}$$

Put your finger under the second 1.

Think 1 and 1 are 2.

Put your finger under the last 1.

Think 2 and 1 are 3.

The sum is 3.

Harry has 2 books, Ned has 2 books, and Nan has 1 book.

Figures say it this way:

$$\begin{array}{r} 2 \\ 2 \\ \underline{1} \\ 5 \end{array}$$

Put your finger under the second 2.

Think 2 and 2 are 4.

Put your finger under the 1. Think 4 and 1 are 5. The sum is 5.

Add these columns. Begin at the top. Now that you know how to add them, try to do it without pointing.

1	2	3	7	6
1	2	3	1	1
1	1	1	2	1
5	2	2	3	1
3	1	1	3	1
1	1	3	1	2

4	3	1	2	1
4	1	2	2	3
1	4	1	1	1

1	4	1	1	5
1	3	2	4	1
2	4	3	1	1

8	9	6	1	7
1	1	2	2	1
2	1	3	1	1

MAKING BILLS

Play that you are a clerk in a grocery store.

Mrs. Brown has telephoned to the store for some things.

When they are sent, a bill must go with them.

You must make out this bill.

It should look like the one at the top of the next page.

Remember that the sign ¢ means “cents.”

Mrs. Brown

Soap	3¢
Nuts	2¢
Matches	4¢
	9¢

Mrs. Little bought

Yeast cake	3¢
Milk	6¢
Candy	1¢

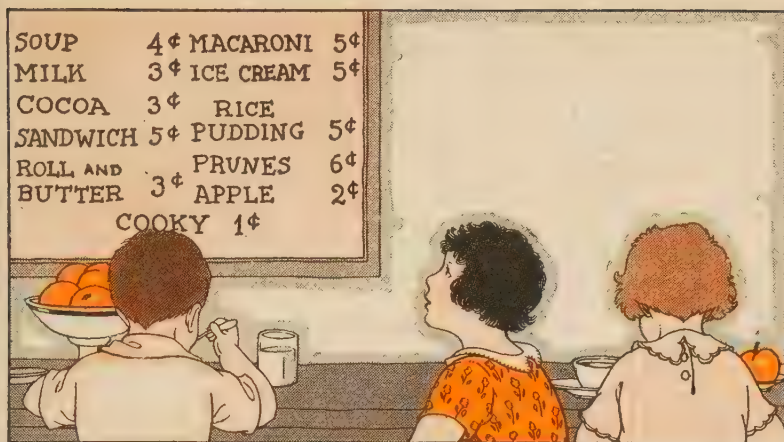
Make a bill for her.

Make a bill for your mother.

She sent for three things too.

When you play store the manager must check every bill to see that it is right.

Some boy or girl may be the manager.



THE LUNCH ROOM

In the lunch room, these names and prices were written on the bulletin board. Remember that the sign ¢ means *cent* or *cents*.

Soup	4¢	Macaroni	5¢
Milk	3¢	Ice cream	5¢
Cocoa	3¢	Rice pudding	5¢
Sandwich	5¢	Prunes	6¢
Roll and butter	3¢	Apple	2¢
Cooky		1¢	

Tell how much each child spent. You may write the figures. The figures for Mary's lunch will look like this:

$$\begin{array}{r} 4\text{¢} \\ 5\text{¢} \\ 2\text{¢} \\ \hline 11\text{¢} \end{array}$$

1. Mary had soup, a sandwich, and an apple.

2. James had milk, roll and butter, and an apple.

3. Tom had cocoa, macaroni, and an apple.

4. Nell had soup, macaroni, and a cooky.

5. Betty had cocoa, roll and butter, and rice pudding.

6. Sam had milk and a sandwich. He spilled his milk and had to buy some more.

7. Joe had soup, prunes, and a cooky.

8. Ned had roll and butter, macaroni, and an apple.

9. Nan had milk, rice pudding, and a cooky.

10. Dick had a sandwich, milk, and 2 cookies.

ADDITION

Find the sums:

6	3	4	4	3	7
4	2	4	1	3	3
1	4	2	5	6	4
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

4	8	4	9	7	9
3	2	4	1	2	1
7	5	8	1	9	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

5	2	3	6	4	5
2	2	3	3	2	2
3	6	2	2	1	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

SUBTRACTION

Find the differences:

10	11	18	9	18	7
<u>7</u>	<u>6</u>	<u>10</u>	<u>4</u>	<u>8</u>	<u>3</u>
6	11	6	15	5	11
<u>0</u>	<u>7</u>	<u>5</u>	<u>5</u>	<u>2</u>	<u>8</u>

ONE HALF

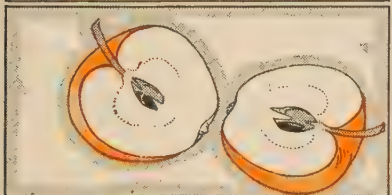
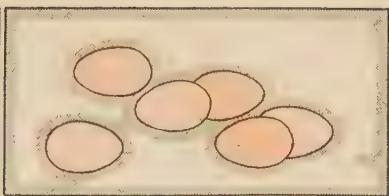
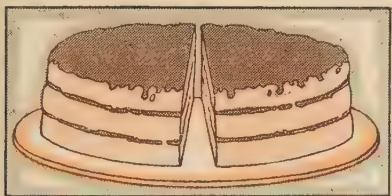
When you cut a thing into two parts that are exactly the same size, each part is called *one half*.

Figures say it this way, $\frac{1}{2}$.

Take a long piece of chalk. Give $\frac{1}{2}$ of it to a little girl.

Take a sheet of paper. Give $\frac{1}{2}$ of it to a little boy.

Take 4 pencils. Give half of them to the



teacher. Do you need to break the pencils to get $\frac{1}{2}$? No; because 2 pencils are $\frac{1}{2}$ of 4 pencils.

There are 6 books on the table. Put $\frac{1}{2}$ of them on a chair.

Read this and answer the questions:

1 and 1 are 2.

$\frac{1}{2}$ of 2 is 1.

2 and 2 are 4.

$\frac{1}{2}$ of 4 is 2.

What is $\frac{1}{2}$ of 6?

What is $\frac{1}{2}$ of 8?

What is $\frac{1}{2}$ of 10?

Ask a question with $\frac{1}{2}$ in it for some one else to answer.

A DOZEN

Count the eggs in the picture on page 161.
How many are there?

Twelve eggs make one dozen.

Twelve of anything make a dozen.

Six eggs make a half-dozen.

Six of anything make $\frac{1}{2}$ a dozen.

What other things besides eggs do we buy by the dozen?

SOMETHING TO DO:

Take a piece of paper.

1. Draw 1 dozen apples.

Write the number that says a dozen.

2. Draw $\frac{1}{2}$ dozen eggs.

Write the number that says $\frac{1}{2}$ dozen.

DO YOU KNOW?

How many of these questions can you answer?

How tall are you?

How old are you?

What is your telephone number?

What is the number of your house?

When is your birthday?

How much do you weigh?

How many things are in a dozen?

How many things are in $\frac{1}{2}$ a dozen?

How many days are in a week?

How many months are in a year?

How many seasons are in a year?

How many pints are in a quart?

How many feet are in a yard?

What day of the month is this?

THE HAT SALE

Look at these hats.

They are on sale to-day.

They will cost just $\frac{1}{2}$ of what they are marked.

We call it a half-price sale.

1. The first hat will cost —— cents.
2. The second one will cost —— cents.
3. The third will cost —— cents.
4. The fourth will cost —— cents.
5. The fifth will cost —— cents.
6. The sixth will cost —— cents.
7. The seventh will cost —— cents.
8. The eighth will cost —— cents.
9. The ninth will cost —— cents.
10. The tenth will cost —— cents.
11. The eleventh will cost —— cents.
12. The twelfth will cost —— cents.

If you wish to play hat sale, cut pictures of



hats from magazines. Paste each one on a narrow strip of cardboard. Then stand each strip in an empty spool.

MEASURING THINGS

How many inches long is your ruler?

If it is 12 inches long, it is a foot ruler.

Measure the yard stick with your ruler.

How many feet are in a yard?

Yes, there are 3 feet in a yard. We found that out when we played the bean bag game.

SOMETHING TO DO:

Measure with your ruler and write on paper the numbers to fill the blanks:

1. My pencil is —— inches long.
2. My shoe is —— inches long.
3. The door is —— inches wide.
4. My reader is —— inches long.
5. My reader is —— inches wide.
6. My desk is —— feet wide.
7. My desk is —— feet high.

8. The window is —— feet from the floor.
9. The window is —— feet wide.
10. The blackboard is —— feet from the floor.

Measure each other.

Perhaps some one has some string in his pocket. If so, let us measure it and see how many yards long it is.

SOMETHING TO DO:

Write the answers:

1. How many feet are in 2 yards?
2. How many inches are in 2 feet?
3. If 1 yard of ribbon costs 5¢, how much will 3 yards cost?
4. If 1 piece of candy costs 2¢, how much will 4 pieces cost?
5. If 1 apple costs 4¢, how much will 10 apples cost?
6. How many pints are 8 quarts?



THE BIG TWELVE

The little figures on the big 12 show numbers that add to make 12.

Can you put in the missing number?

6 and — are 12. 3 and — are 12.

7 and — are 12. 4 and — are 12.

8 and — are 12. 5 and — are 12.

9 and — are 12.

Give the sums:

6	8	7	4	9	5	3
6	4	5	8	3	7	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

12	12	12	12	12	12	12
4	3	6	7	5	9	8
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Here are some other combinations that make 12:

0	12	11	1	10	2
12	0	1	11	2	10
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

12	12	12	12	12	12
12	0	1	10	11	2
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

PROBLEMS

1. Mother used 2 eggs for salad dressing, 4 eggs for a cake, and 6 eggs for a pudding. She used —— eggs.

2. School begins at 9 o'clock. We go home 3 hours after. We go home at —— o'clock.

3. Six is $\frac{1}{2}$ a dozen. One half a dozen eggs and 2 eggs are —— eggs.

4. One doughnut and $\frac{1}{2}$ a dozen doughnuts are —— doughnuts.

5. Father has 6 collars in one box and 6 collars in another box. He has —— collars.

6. Mother used 2 oranges for breakfast and 2 oranges for lunch. There are 8 oranges left in the bag. She bought —— oranges.

7. I read 7 pages yesterday and 3 pages to-day. I read —— pages.

8. My reader is 9 inches long and my story book is 3 inches longer. My story book is —— long.

9. Sue and Mary had a lemonade stand. Sue brought 7 lemons and Mary brought 4. They used —— lemons.

10. There are —— oranges in a dozen.

11. There are —— oranges in $\frac{1}{2}$ a dozen.

MORE PROBLEMS

If you need help, turn to the big number 12 on page 168.

1. Tom's grandpa sent him a dozen eggs from the farm. Four were broken on the way. There were —— eggs left.

2. We had a paper sale at our school. John brought 12 pounds of paper. Sam brought 3 pounds. John brought —— more pounds than Sam.

3. Mother needs 12 buttons for Mary's new dress. She has 5. She must buy —— buttons.

4. Tom has 8 cents. He wants to buy a toy automobile for 12 cents. He needs —— more cents.

5. There were 12 buns on one plate. There were 7 buns on another. There were —— more on the first plate.

6. Ann had 12 spelling words. She had 6 right. She missed —— words.

7. There are 12 boys and 9 girls in our class. There are —— more boys than girls.

8. There are 12 rooms in our school. Seven are on the first floor. The rest are on the second floor. There are —— rooms on the second floor.

9. Joe and Tom had 12 peanuts. They gave 6 to the bear and the rest to the monkey. They gave —— to the monkey.

10. Dan is 12 years old. His sister is 8 years old. Dan is —— years older than his sister.

11. Sue has 12 little bowls for bulbs. She has 6 little bulbs. She needs —— more bulbs.

12. John went to school at 9 o'clock. He came home at 12 o'clock. He was gone —— hours.

YES OR NO

Can you buy an inch of sugar?

Can you buy a quart of eggs?

Can you buy a pound of butter?

Can you buy a pair of mittens?

Can you buy a yard of syrup?

Can you buy a dozen oranges?

Can you buy a pint of coal?

Can you buy a foot of gasoline?

Can you buy $\frac{1}{2}$ a yard of ribbon?

Can you buy $\frac{1}{2}$ an egg?



THE BIG THIRTEEN

The little figures on the big 13 show numbers that add to make 13.

Put in the missing numbers:

7 and — are 13. 9 and — are 13.

4 and — are 13. 6 and — are 13.

5 and — are 13. 8 and — are 13.

Give the sums:

6	9	5	4	8	7
7	4	8	9	5	6
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

13	13	13	13	13	13
4	8	5	7	9	6
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the missing numbers:

13	13	13	13	13	13
8	7	4	9	5	6
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Here are some other combinations that make 13:

0	1	13	12	2	3	11	10
13	12	0	1	11	10	2	3
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

ADDITION

You may copy these examples and write the answers:

6	3	5	4	5	2
6	2	3	3	5	2
1	5	5	6	9	8
—	—	—	—	—	—

3	4	6	5	3	8
3	2	5	4	2	2
1	1	1	2	5	1
1	2	1	8	1	2
—	—	—	—	—	—

6	3	5	2	2	4
0	5	6	2	8	2
1	1	2	2	2	1
2	4	0	3	1	5
—	—	—	—	—	—

Fill the blanks:

Five 2's are —. Six 10's are —.

Two 5's are —. Two 9's are —.

Ten 6's are —. Nine 2's are —.

SUBTRACTION

You may copy these examples and write the answers:

13	12	8	11	9	5
3	5	3	6	8	0

12	10	13	11	8	10
6	3	4	4	5	3

13	12	10	8	13	12
9	3	9	6	7	8

AT SCHOOL

1. There are 6 girls in the A Class and 7 girls in the B Class. There are —— girls in the room.

2. There are 6 boys in the A Class and 6 boys in the B Class. There are —— boys in the room.

3. There are 5 windows at the back of the room and 4 windows at the side. There are —— windows.

4. We played 2 games this morning and 3 games this afternoon. We played —— games.

5. Our teacher has 9 books on her table and 4 on her desk and 2 in her desk. She has —— books.

6. Henry brought the teacher 4 roses, Tim brought 6, and Nan brought 3. The teacher has —— roses.

7. There are 8 red chairs at the reading table, 5 at the back of the room, and 1 against the wall. There are —— red chairs.

8. Bob sharpened 4 pencils this morning and 9 this afternoon. He sharpened —— pencils.

9. Ruth brought 4 story books from home, Nell brought 3, Ann brought 5. They brought —— books.

10. We played out of doors 6 minutes and 4 minutes this morning, and 10 minutes this afternoon. We were out of doors —— minutes.

PROBLEMS

If you need help, look at the big number 13 on page 174.

1. Our flag has 13 stripes. Seven are red. How many are white?

2. Sue has 13 little bowls. She has 9 bulbs. She needs —— more bulbs to fill her bowls.

3. Ruth's bank has 9 cents in it. She wants to make it 13 cents. She must put in —— cents.

4. Fred had 13 little ducks. Eight of them died. He has —— ducks left.

5. There were 13 candles on our Christmas tree. Four of them were green and the rest were red. How many candles were red?

6. Baby had 13 blocks. Mother can find only 7 of them. He has lost —— blocks.

7. There are 13 children in our class. Nine of them are girls. There are —— boys.

8. There were 13 little pigs in a pen. Seven got out. There are —— little pigs left in the pen.

9. I need 13 cents to buy my tablet and pencil at school. I have 8 cents. I must earn —— cents.

10. I had 13 sticks of candy. I gave 6 of them to my little friends. I have —— sticks left.

11. I had 13 cents. I spent a dime for candy. I have —— cents left.

12. Mary has 13 cents and Nan has 11. Mary has —— more cents than Nan.

13. Ann had 13 cents in her pocket, but she lost a nickel. Now she has only —— cents.

THE CAFETERIA LUNCH

Tom, Harry, Joe, and May are to have lunch at the cafeteria to-day. Mother says they must each eat one vegetable. The lunch must not cost more than 20 cents.

Here is the price list:

Milk	4¢	Pie	5¢	Rice	3¢
Sandwich	8¢	Soup	5¢	Meat	8¢
Pudding	7¢	Jello	4¢	Carrots	3¢
Ice cream	8¢	Peas	6¢	Potatoes	3¢
Cake	5¢	Spinach	4¢	Beans	4¢

1. Play you are Tom, Harry, Joe, or May.
Choose your lunch.

2. Play you are the clerk and make out Tom's bill.

3. Make out May's bill.

4. Make out Harry's bill.

5. Make out Joe's bill.



THE BIG FOURTEEN

The little figures on the big 14 show numbers that add to make 14.

Put in the missing number:

7 and — are 14. 6 and — are 14.

8 and — are 14. 5 and — are 14.

9 and — are 14.

Give the sums:

8	9	7	6	5
6	5	7	8	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the differences:

14	14	14	14	14	14
8	5	7	6	9	14
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Give the missing numbers:

8	9	6	5	7	14
<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>

Here are other combinations that make 14:

0	2	1	4	14
14	12	13	10	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

10	12	13	11	3
<u>4</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>11</u>

Give the sums:

3	6	5	4	7	4
<u>4</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>6</u>	<u>5</u>
7	2	1	6	0	5
<u>7</u>	<u>2</u>	<u>1</u>	<u>6</u>	<u>0</u>	<u>5</u>

3	2	3	8	3	5
<u>4</u>	<u>9</u>	<u>3</u>	<u>0</u>	<u>2</u>	<u>2</u>
6	1	8	8	9	7
<u>6</u>	<u>1</u>	<u>8</u>	<u>8</u>	<u>9</u>	<u>7</u>

PROBLEMS

If you need help, look at the big number 14 on page 182.

1. James had 14 marbles in his bag. He gave 6 to his little brother. He has —— marbles left.

2. There are 14 children playing hide and seek. Nine children were caught. —— children ran in free.

3. Last night I counted 14 buds on my rose bush. In the night the wind broke 10 of them. I have —— buds left.

4. John had 14 papers to sell. He has sold 6 of them. He has —— more to sell.

5. Sam's old hen had 14 chickens. Sam sold 5 of them. There are —— little chickens left.

6. When I was visiting in the city I bought 14 postal cards. I sent 7 of them to my friends. I have —— postal cards left.

7. John saw a toy airplane in a store window and wanted to buy it. It cost 14 cents. He has only 8 cents. He will need to earn —— cents more.

8. There are 14 people going to our picnic. We have only 9 plates. We must borrow —— more.

9. There are 14 children in my class. Seven of them are girls. How many boys are there?

10. There were 14 little pigs in a pen. Five of them crawled through the fence. There are — pigs left.

ADDITION

How quickly can you give the sums?

$\begin{array}{r} 5 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 8 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ 5 \\ \hline \end{array}$

SUBTRACTION

How quickly can you give the differences?

$\begin{array}{r} 8 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ 5 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ 4 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ 8 \\ \hline \end{array}$
$\begin{array}{r} 13 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ 8 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ 7 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ 3 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ 6 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ 5 \\ \hline \end{array}$

ADDITION

Give the sums:

9	8	2	4	5	7	9	2
1	5	7	6	4	6	1	8
3	1	5	1	3	0	2	0
			2	2	1	2	5

To be sure you are right, add twice. First add down the column. Then add up the column. You should have the same answer both times.

THINGS TO DO

1. Touch the first child in the third row.
2. Touch the next to the last child in the fifth row.
3. Touch the first girl in the second row.
4. Touch the last boy in the fourth row.
5. Touch the third child in the first row.

6. Touch the fifth child in the second row.
7. Touch the upper right corner of your desk.
8. Touch the front of your teacher's desk.
9. Touch the last child in the fourth row.
10. Touch the smallest child in your row.
11. Touch the left side of the door.
12. Touch the lower left-hand corner of the door.

THE FRUIT STAND

These were the prices of fruit on the stand:

Apple	4¢	Pear	5¢
Banana	3¢	Grapefruit	8¢
Orange	5¢	Plum	2¢
Peach 3¢			

You may write the figures for these bills and add them:

1. Nan bought a peach, a pear, and an apple. They cost ——— cents.



2. Ned bought a banana, a plum, and an apple. They cost —— cents.

3. Harry bought a peach, a pear, and an orange. They cost —— cents.

4. Mary bought 2 oranges and a grapefruit. They cost —— cents.

5. James bought an apple, a peach, and a banana. They cost —— cents.

6. Dick bought a grapefruit and an orange. They cost —— cents.

7. Carl bought 2 grapefruit. They cost —— cents.

8. Frank bought a banana, a pear, and an orange. They cost —— cents.

9. Kate bought 2 pears and an orange. They cost —— cents.

10. John bought an apple, a pear, and an orange. They cost —— cents.

11. Nell bought an apple, a banana, a peach, and a grapefruit. They cost —— cents.

12. May bought 2 apples and 2 plums. They cost —— cents.

13. Norman bought a grapefruit, a banana, and a plum. They cost —— cents.

14. If you had 15 cents, what would you buy at the fruit stand? Make out your bill.

ROMAN NUMERALS

Long ago the people who lived in Rome did not use figures like ours. They used these letters for figures.

I for 1

V for 5

X for 10

We call them Roman numerals.

Putting I before a Roman numeral takes 1 away from it.

Putting I after the Roman numeral adds 1 to it.

V says 5

IV says 4

VI says 6

The Romans wrote their numbers like this:

I	II	III	IV	V	VI
1	2	3	4	5	6

VII	VIII	IX	X	XI	XII
7	8	9	10	11	12

Sometimes we use these Roman numerals.
 You can see them on the face of the clock.
 They are often used to number the chapters
 in books.

Can you find them used in any other way?

SOMETHING TO DO:

Write the Roman numerals from 1 to 12.
 Shut your book and do it.

TELLING TIME

Look at the schoolroom clock.
 The little hand tells the hour.
 We call it the *hour hand*.
 It moves from one number to the next in
 just an hour.
 We call the long hand the *minute hand*.



It moves all the way around the clock face in an hour.

At 1 o'clock the minute hand points to 12 and the hour hand to 1. At 2 o'clock the minute hand points to 12 and the hour hand to 2. How do we know when it is 3 o'clock? 4 o'clock? 5 o'clock?

Look at the clock in the picture. The hour hand points close to XII and the minute hand points to I. That means 5 minutes after 12.

It takes the minute hand just 5 minutes to go from one number to another.

Use your finger for a minute hand. Let it move around the clock face in the picture. Tell how much after XII it is each time you come to a number.

You are really counting by 5's when you do this.

Let us make a cardboard clock face with two hands that will turn. We can fasten the hands on by putting a pin through them and through the clock face and bending the pin over to hold it.

Turn the hands to different places and tell what time they say.

What time is it by the school clock?

What time does each clock on page 195 say?

Which clock tells the time to begin school?

Which clock tells a time to get up?

How many hours does it take the hour



hand to go all around the clock face from XII to XII or from VI to VI?

Then how many hours are there in a whole day from morning till night.

In a day and night there are twice 12 hours.

Twice 12 hours is how many hours?

How can you help Father by being able to tell time?

How can you help Mother by being able to tell time?

How can you help yourself by being able to tell time?

CLOCK GAME

Let us choose 12 children to make the numbers on the clock face. The first child is 1. Each child may have a card marked with his or her number.

One child stands in the center. He has a short pointer to point to the hour and a long pointer to point to the minutes.

The children in the class who are not in the clock may ask the child in the center to make the clock say:

9 o'clock	10 minutes past 9
12 o'clock	5 minutes past 12
6 o'clock	15 minutes past 6

The boy in the center may make the clock say a time for each child to tell, as —

Five minutes past three.

Fifteen minutes to four.

SOMETHING TO DO:

Draw a clock face with the hands at any time you wish.

Write the time under the clock face.

Write —

How many minutes are in an hour.

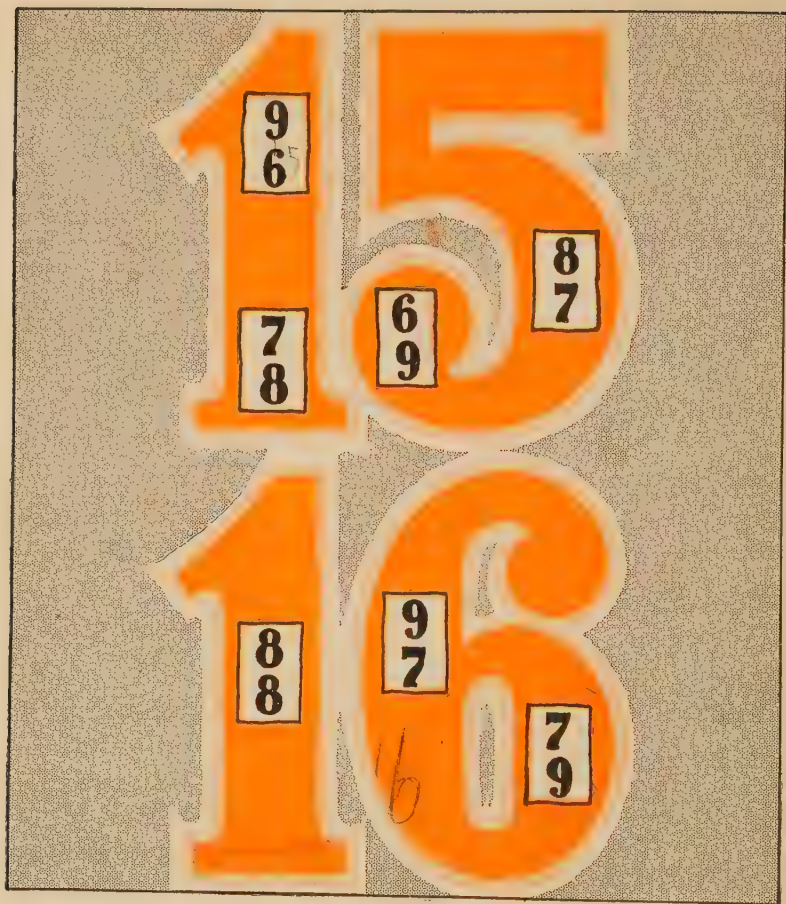
How many hours are in a day and night.

How many days are in a week.

How many months are in a year.

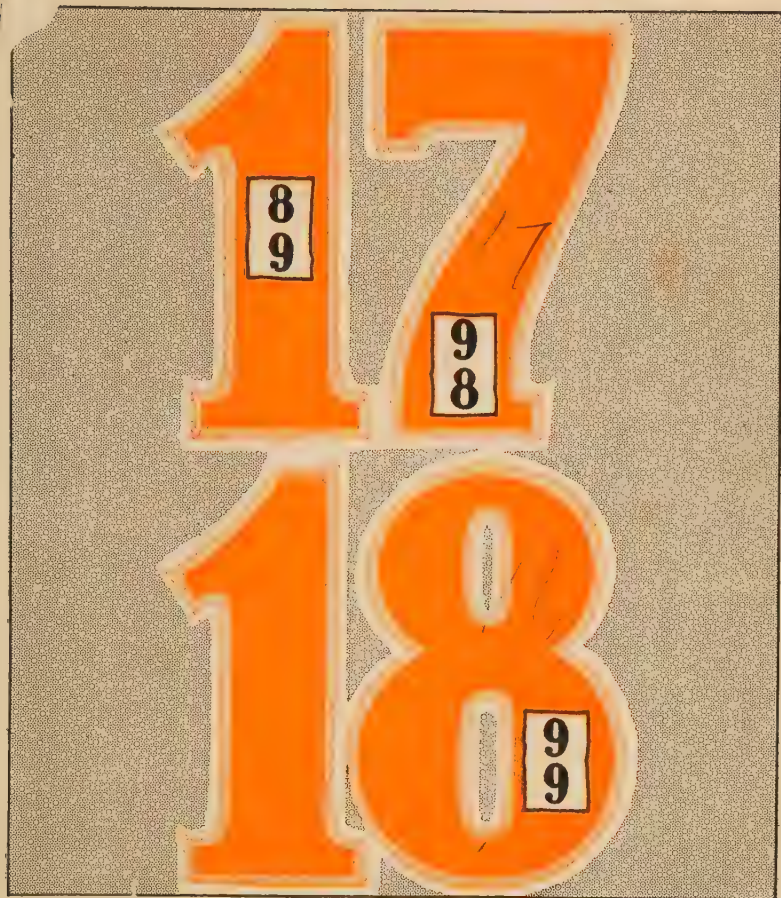
How many seasons there are and tell the name of each.

How the Romans wrote 12.



FOUR MORE BIG NUMBERS

The little figures on the big figures are combinations that make 15, 16, 17, and 18.



There are other numbers that add together to make 15, 16, 17, and 18; but just now you are to try especially hard to remember the ones that are given here.

Find these answers on pages 198 and 199.¹

9 and — are 15.

9 and — are 16.

7 and — are 15.

7 and — are 16.

6 and — are 15.

9 and — are 17.

8 and — are 15.

8 and — are 17.

8 and — are 16.

9 and — are 18.

Find the sums:

8	7	9	6	8	9	7	9	8	9
7	8	6	9	8	7	9	8	9	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Find the differences:

15	15	15	15	16	16	16	17	17	18
9	7	6	8	8	9	7	9	8	9
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Find the sums:

5	5	7	9	4	7	3	6	3	4
3	4	2	0	3	0	3	2	5	4
8	9	8	6	8	9	9	8	8	7
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

¹ For a review of all the addition and subtraction combinations, see the charts on pages 239-42. These should be used frequently.

PROBLEMS

1. Joe had 16 rabbits. One morning he found only 9. How many were gone?

2. Mary spent 8 cents for a note book, 5 cents for a pencil, and 1 cent for an eraser. How much did she spend altogether?

3. John had 15 cents. He bought a top for 5 cents and a ball for 8 cents. How much change did he get back?

4. May asked 14 children to go on her birthday picnic. Three could not go. How many went?

5. Joe was looking for eggs. He found 4 in one nest, 3 in another, and 6 in another. How many did he find in all?

6. Tim is 11 years old. Joe is 2 years younger. How old is Joe?

7. John has 10 cents and Ted has twice as much. How much has Ted?

8. It is now 1 o'clock. Mary's father will be home in 5 hours. When will he come home?

9. There are 3 boats on the lake and there are 5 people in each boat. How many people are on the lake?

10. Mary had 14 apples and gave half of them to May. How many apples did Mary have left?

KEEPING SCORE

1. In the arithmetic game this morning, Tom and Mary chose sides. On Tom's side there were 9 boys and 8 girls. There were —— children.

2. On Mary's side there were 10 boys and 7 girls. There were —— children.

3. Mary's side played first. Her boys made 8 points, and her girls made 7 points. They made —— points.

4. Tom's side played. His boys made 9 points, and his girls made 9 points. They made —— points.

5. Which side won? How many more points did the winners have than the losers?

6. It took Mary's side 6 minutes and Tom's side 9 minutes. They played —— minutes.

7. Mary's girls made 7 points and Tom's girls made 9 points. The girls made —— points.

8. Tom's boys made 9 points and Mary's boys made 6 points. The boys made —— points.

9. In the afternoon they kept the same sides for spelling. On Mary's side 9 boys and 7 girls had 100. There were —— hundreds.

10. On Tom's side 7 boys and 8 girls had 100. There were —— hundreds on his side.

11. Which side won? How many more points did the winners have than the losers?

PROBLEMS

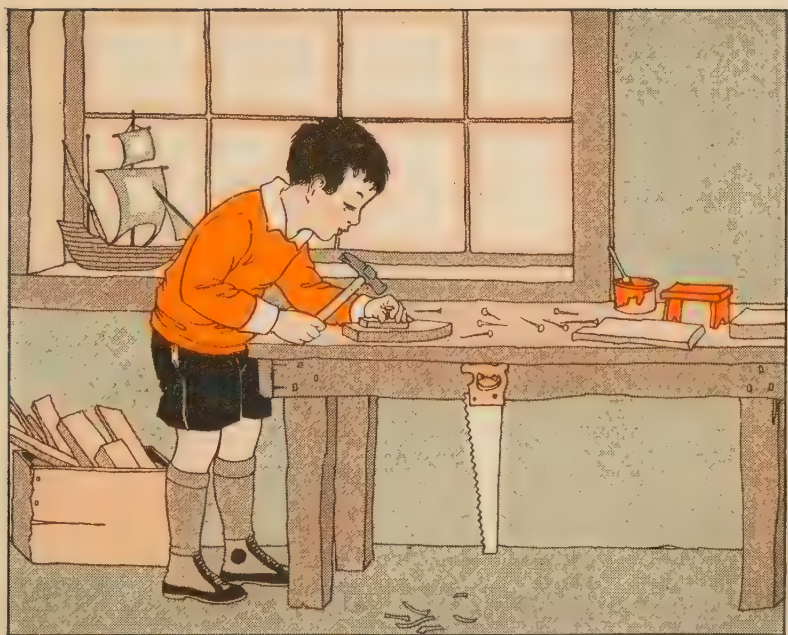
If you need help, look at the big numbers on pages 198 and 199.

1. A building is 18 stories high. The elevator is at the ninth floor. It has —— floors to go to reach the top.

2. Tim has 15 dollars in the school bank. His mother says he may take out 6 dollars to buy a pair of shoes. He will have —— dollars left.

3. Sue is 15 years old. Her sister is 9 years younger. Her sister is —— years old.

4. Jane is playing library. She has 17 books. She has loaned 9 to the children. She has —— books left on her library shelf.



5. Bob was making a boat. Father gave him 18 nails. He used 9 of them. He has ——— nails left.

6. Tom's hen had 16 baby chicks. Eight of them died. She has ——— chicks left.

7. James has saved 9 cents to buy a little boat. When he went to the store to buy it,

the man told him it would cost 15 cents. James must earn —— cents more.

8. There are 17 children in Jane's class. Eight children were at the blackboard. There were —— children in their seats.

9. Mary had 17 pages in her note book. She has filled 9 of them. She has —— pages left.

10. John went to the country to stay 16 days. He has stayed 7 days. He can stay —— days longer.

DO YOU KNOW?

How many things are in a dozen?

How many pints are in a quart?

How many inches are in a foot?

How many feet are in a yard?

How many days are in a week?

How many pennies are in a nickel?

How many wheels are on an automobile?

How many pennies are in a half dollar?

How many pennies are in a dime?

How many nickels are in a dime?

How many pennies are in a quarter?

How many nickels are in a quarter?

How many minutes are in an hour?

How many hours are in a day?

How many pennies are in a dollar?

How many dimes are in a dollar?

How many stars are in the flag?

ADDITION AND SUBTRACTION

Add:

6	7	8	9	8	5	6	8	7	7
7	7	7	4	6	8	9	9	9	8
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

4	9	8	5	8	9	9	6	7	9
9	6	8	9	5	7	8	8	6	5
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Subtract:

13	14	15	13	14	13	15	17	16	15
<u>7</u>	<u>7</u>	<u>7</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>8</u>

13	15	16	14	13	16	17	14	13	14
<u>9</u>	<u>6</u>	<u>8</u>	<u>9</u>	<u>5</u>	<u>7</u>	<u>8</u>	<u>8</u>	<u>6</u>	<u>5</u>

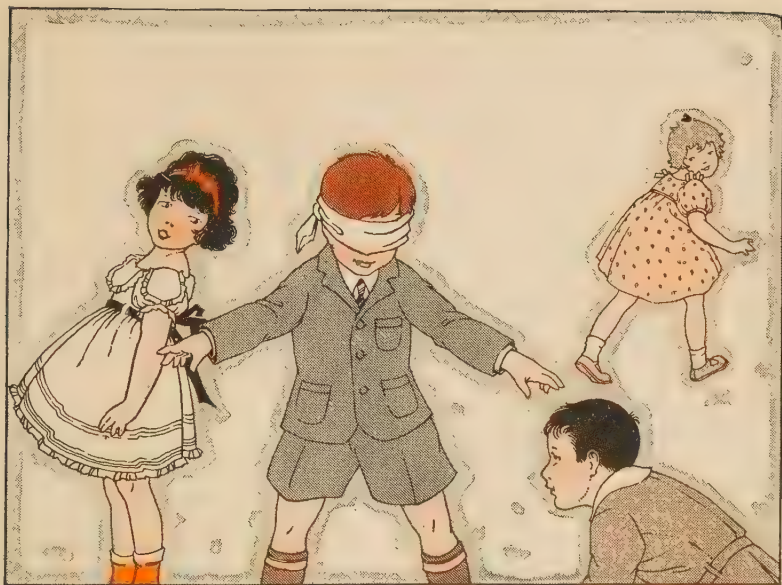
15	13	13	14	13	15	17	16	15	13
<u>8</u>	<u>6</u>	<u>9</u>	<u>8</u>	<u>0</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>4</u>

15	14	13	16	17	14	13	14	12	12
<u>6</u>	<u>5</u>	<u>8</u>	<u>9</u>	<u>9</u>	<u>6</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>3</u>

Add:

4	5	6	5	8	4	3	4	3	4	5
3	2	3	5	2	4	2	2	3	1	1
7	8	4	7	8	2	1	5	3	0	0
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>6</u>	<u>6</u>	<u>2</u>	<u>2</u>	<u>6</u>	<u>9</u>

Add both *down* and *up* to be sure that you are right.



A PARTY

1. Eight boys and 8 girls were invited to a party. — children were invited.

2. Seven boys and 8 girls came to the party. There were — children at the party.

3. The boys chose 2 games and the girls chose 3 games. They played — games altogether.

4. The boys won 4 races and the girls won 3 races. They had —— races.

5. Mother read them 3 stories, Aunt May read 2 stories and Grandma told them 1 story. They heard —— stories.

6. At lunch each boy drank 2 glasses of lemonade. The boys drank —— glasses of lemonade.

7. Each girl drank 2 glasses of lemonade. The girls drank —— glasses.

8. On one plate there were 6 pieces of light cake and 9 pieces of dark cake. There were —— pieces of cake.

9. On another plate there were 9 pieces of chocolate cake and 7 pieces of sponge cake. There were —— pieces of cake.

10. Mary's mother took 4 boys and 2 girls home in her car. She took —— children home.

11. Tom's mother took 3 boys and 2 girls home in her car. She took —— children home.

12. Four children went home on the street car. The fare was 5 cents for each. Joe gave the conductor a quarter to pay all the fares. How much change did Joe get?

ADDING LARGER NUMBERS

Mary had 22 cents and she earned 15 cents more by taking care of the baby. How much did she have then?

Mary had 22 cents at first. That was 2 dimes and 2 cents. Then she had 15 cents more. That was 1 dime and 5 cents. So she had altogether 3 dimes and 7 cents. Three dimes make 30 cents, and 2 cents added to 5 cents are 7 cents. So Mary had altogether 37 cents.

We write it like this:

$$\begin{array}{r} 22 \\ + 15 \\ \hline 37 \\ \hline \end{array}$$

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All we need to do is first to add 2 and 5 and then to add 2 and 1. We always add the right-hand column first. We add in just the same way whether we are adding money or other things.

Try these examples. You may copy them and write the answers.

21	54	36	72	30	85
<u>43</u>	<u>22</u>	<u>51</u>	<u>17</u>	<u>69</u>	<u>13</u>

24	34	25	38	31	15
<u>31</u>	<u>42</u>	<u>32</u>	<u>20</u>	<u>25</u>	<u>31</u>
<u>12</u>	<u>20</u>	<u>22</u>	<u>40</u>	<u>43</u>	<u>33</u>

42	30	32	37	43	16
<u>16</u>	<u>34</u>	<u>14</u>	<u>21</u>	<u>16</u>	<u>31</u>
<u>30</u>	<u>21</u>	<u>20</u>	<u>21</u>	<u>20</u>	<u>42</u>

33	45	88	27	23	13
<u>22</u>	<u>10</u>	<u>10</u>	<u>50</u>	<u>32</u>	<u>22</u>
<u>11</u>	<u>34</u>	<u>10</u>	<u>12</u>	<u>21</u>	<u>33</u>

SUBTRACTING LARGER NUMBERS

Joe wants a ball that costs 54 cents and he has only 32 cents. How much must he earn to buy the ball?

He needs 5 dimes and 4 cents, and he has 3 dimes and 2 cents. As 2 cents and 2 cents make 4 cents, he needs 2 cents; and as 3 dimes and 2 dimes make 5 dimes, he needs 2 dimes. So he needs 2 dimes and 2 cents, and 2 dimes and 2 cents are 22 cents. We write it like this:

$$\begin{array}{r} 54 \\ 32 \\ \hline 22 \end{array}$$

We subtract the right-hand column first and then the left-hand column. We subtract in just the same way whether we are subtracting money or other things.

Try these examples in subtraction. You may copy them and write the answers.

$\begin{array}{r} 36 \\ 21 \\ \hline \end{array}$	$\begin{array}{r} 49 \\ 32 \\ \hline \end{array}$	$\begin{array}{r} 65 \\ 44 \\ \hline \end{array}$	$\begin{array}{r} 81 \\ 60 \\ \hline \end{array}$	$\begin{array}{r} 78 \\ 27 \\ \hline \end{array}$	$\begin{array}{r} 92 \\ 71 \\ \hline \end{array}$
---	---	---	---	---	---

$\begin{array}{r} 46 \\ 34 \\ \hline \end{array}$	$\begin{array}{r} 59 \\ 23 \\ \hline \end{array}$	$\begin{array}{r} 33 \\ 22 \\ \hline \end{array}$	$\begin{array}{r} 84 \\ 74 \\ \hline \end{array}$	$\begin{array}{r} 58 \\ 25 \\ \hline \end{array}$	$\begin{array}{r} 46 \\ 15 \\ \hline \end{array}$
---	---	---	---	---	---

$\begin{array}{r} 48 \\ 33 \\ \hline \end{array}$	$\begin{array}{r} 29 \\ 18 \\ \hline \end{array}$	$\begin{array}{r} 32 \\ 21 \\ \hline \end{array}$	$\begin{array}{r} 76 \\ 65 \\ \hline \end{array}$	$\begin{array}{r} 39 \\ 28 \\ \hline \end{array}$	$\begin{array}{r} 89 \\ 53 \\ \hline \end{array}$
---	---	---	---	---	---

PROBLEMS

You will need paper and pencil for these:

1. Tom had 42 cents. On his birthday his uncle gave him 25 cents. Then Tom had ——— cents.

2. Sue, May, and Nell were picking berries. Sue picked 12 quarts, May picked 11 quarts, and Nell picked 13 quarts. They picked ——— quarts.

3. John had 32 marbles. He lost all but 11. He lost —— marbles.

4. Tom and Joe were looking for eggs. Tom found 26 and Joe 33. They found —— eggs.

5. James wants to buy a book that costs 75 cents. He has 54 cents. He needs —— cents more.

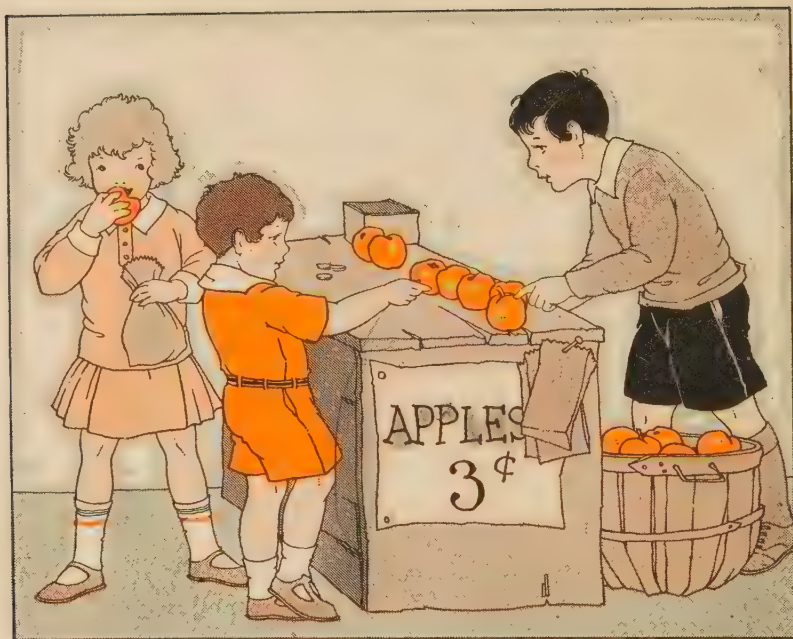
6. There are 42 children in our class. There are 21 girls. That leaves —— boys.

7. John is 45 inches tall and Tim is 42 inches tall. John is —— inches taller.

8. May bought at the grocery store 1 dozen oranges for 60 cents, $\frac{1}{2}$ dozen lemons for 23 cents, and a box of washing powder for 15 cents. She spent —— cents.

9. Harry has 69 cents. If he spends 48 cents for a knife, he will have —— cents left.

10. How many pencils will a class need if there are 15 girls and 14 boys in it?



TOM'S APPLE SALE

Tom's uncle has a farm. He gave Tom a bushel of apples. Tom wanted to make some money so he sold the apples to other children for 3 cents apiece.

1. Harry bought 4 apples. He paid ——— cents.

2. May bought 2. She paid —— cents.
3. Joe bought 5. He paid —— cents.
4. Nell bought 3. She paid —— cents.
5. Tim bought 6. He paid —— cents.
6. Jane bought 7. She paid 3 cents more
than Tim. Jane paid —— cents.
7. Fred bought 8. He paid 3 cents more
than Jane. Fred paid —— cents.
8. Ted bought 9. He paid 3 cents more
than Fred. Ted paid —— cents.
9. Nan bought 10. She paid —— cents.

SOMETHING TO DO:

Fill the blanks:

- | | |
|-------------------|-------------------|
| Two 3's are ——. | Six 3's are ——. |
| Three 3's are ——. | Seven 3's are ——. |
| Four 3's are ——. | Eight 3's are ——. |
| Five 3's are ——. | Nine 3's are ——. |
| Ten 3's are ——. | |

ADDITION AND SUBTRACTION¹

Sometimes we want to put down addition and subtraction examples together. When we do this we use signs to show when to find the sum and when to find the difference.

This sign means *add* +

This sign means *subtract* —

See how fast you can give the answers to these combinations:

16	15	7	3	9	5	16	14
<u>-7</u>	<u>-6</u>	<u>+2</u>	<u>+7</u>	<u>+7</u>	<u>+8</u>	<u>-8</u>	<u>-5</u>

3	5	4	2	9	11	13	4
<u>+2</u>	<u>+9</u>	<u>+8</u>	<u>+3</u>	<u>+3</u>	<u>-8</u>	<u>-8</u>	<u>+8</u>

8	15	8	9	15	7	7	8
<u>+6</u>	<u>-8</u>	<u>+7</u>	<u>+5</u>	<u>-9</u>	<u>+5</u>	<u>+8</u>	<u>+9</u>

¹The combinations given here are a group that sometimes prove troublesome.

7	7	5	5	17	12	11	13
<u>+6</u>	<u>+4</u>	<u>+3</u>	<u>+7</u>	<u>-8</u>	<u>-3</u>	<u>-5</u>	<u>-4</u>

11	16	9	7	9	8	4	6
<u>-4</u>	<u>+8</u>	<u>+8</u>	<u>+9</u>	<u>+6</u>	<u>+5</u>	<u>+9</u>	<u>+9</u>

15	11	6	18	7	9	16	14
<u>-7</u>	<u>-3</u>	<u>+7</u>	<u>-9</u>	<u>+3</u>	<u>+4</u>	<u>-9</u>	<u>-9</u>

A REVIEW

Two 2's are ____.

Three 5's are ____.

Five 10's are ____.

Three 3's are ____.

Three 2's are ____.

Four 5's are ____.

Six 10's are ____.

Six 3's are ____.

Seven 2's are ____.

Eight 3's are ____.

Four 3's are ____ed

Five 2's are ____.

Five 5's are ____.

Four 10's are ____.

Five 3's are ____.

Two 5's are ____.

Nine 3's are ____.

Eight 2's are ____.

Two 8's are ____.

Six 5's are ____.

Seven 2's are ——.

Ten 3's are ——.

Seven 3's are ——.

Ten 2's are ——.

Three 10's are ——.

Nine 5's are ——.

PROBLEMS

1. James bought 5 marbles at 2 cents apiece. He spent —— cents.

2. May bought 10 two-cent stamps for her mother. She spent —— cents.

th 3. Harry bought 2 dozen cookies at 10 cents a dozen. He spent —— cents.

4. Ted bought 4 pencils at 3 cents apiece. He spent —— cents.

5. Mary bought 3 yards of ribbon at 10 cents a yard. She spent —— cents.

6. Tom bought 4 apples at 5 cents apiece. He spent —— cents.

7. John bought 5 pieces of candy at 3 cents apiece. He spent —— cents.

8. Tim bought 3 oranges at 5 cents apiece. He spent —— cents.

9. Ted has 6 dimes in his bank. He has —— cents.

10. Nell has 8 nickels in her bank. She has —— cents.

ADDITION

Harry wants to buy a top that costs 14 cents and some marbles that cost 5 cents. To find out if he had enough money he added the two numbers in this way:

$$\begin{array}{r} 14 \\ 5 \\ \hline 19 \end{array}$$

He added the right-hand side first and then put down the 1. He found that he could do examples like this in his head. Can you?

Try the examples on page 222.

11	12	13	14	16	12	12
<u>4</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>2</u>	<u>7</u>	<u>6</u>

11	15	11	13	14	12	11
<u>8</u>	<u>3</u>	<u>5</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>7</u>

12	15	12	18	16	13	17
<u>4</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>5</u>	<u>2</u>

A LESSON IN QUICK ADDITION¹

Mary knew that a box of colored crayons would cost her 8 cents and a book to color in would cost 16 cents. "I don't know how to tell right away how much 16 cents and 8 cents are," she said to her big brother.

"How much are 6 and 8?" said her brother.

"Six and 8 are 14," said Mary.

"Then 16 and 8 are 24," said her brother.

¹ No mention of carrying should be made with this lesson.

“I’ll write down the two examples for you. Here they are:”

$$\begin{array}{r} 6 \\ 8 \\ \hline 14 \end{array} \qquad \begin{array}{r} 16 \\ 8 \\ \hline 24 \end{array}$$

“If we change the 1 of 14 to 2, we have the answer for 16 and 8. Whenever you want to add one of the teen numbers to one of the number friends, just add the two right-hand figures. If the answer is more than 9, change the left-hand 1 in the example to 2. That will give the sum you want. Tell me — how much are 8 and 5?”

“Eight and 5 are 13,” said Mary.

“Then how much are 18 and 5?”

“Eighteen and 5 are 23,” said Mary.

“Fine!” said her brother.

“Now ask me some more,” said Mary.

Her brother asked her all these. Can you

do them quickly? Time yourself and see.

5	15	4	14	6	16	8	18
<u>9</u>	<u>9</u>	<u>8</u>	<u>8</u>	<u>7</u>	<u>7</u>	<u>8</u>	<u>8</u>

7	17	6	16	4	14	9	19
<u>6</u>	<u>6</u>	<u>9</u>	<u>9</u>	<u>7</u>	<u>7</u>	<u>9</u>	<u>9</u>

ADDITION

14	13	18	19	16	15	13	12
<u>6</u>	<u>7</u>	<u>3</u>	<u>2</u>	<u>6</u>	<u>6</u>	<u>9</u>	<u>8</u>

17	12	11	13	14	19	18	16
<u>4</u>	<u>9</u>	<u>9</u>	<u>8</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>9</u>

15	17	15	19	18	16	17	16
<u>8</u>	<u>7</u>	<u>7</u>	<u>9</u>	<u>9</u>	<u>4</u>	<u>8</u>	<u>8</u>

14	17	15
<u>9</u>	<u>9</u>	<u>5</u>

PROBLEMS

In these problems we will use this sign, ¢, for *cents*.

1. Mary earned 18¢ washing dishes and 6¢ dusting. She earned —— ¢.

2. Norman went to the grocery store for his mother. He paid 16¢ for a box of crackers and 8¢ for a loaf of bread. He spent —— ¢.

3. Sue picked some asters. She gave 15 to her mother and took 8 to her teacher. She picked —— asters.

4. May spent 18¢ for candy and 5¢ for an ice-cream cone. She spent —— ¢.

5. Harry had a box of candy. He passed it around his class. There were 17 children in the class and each child took a piece. Seven pieces were left. How much did Harry have at first?

6. Tom's mother sent him to the store for a box of washing powder at 16¢ and a cake of soap at 6¢. He spent ——— ¢.

7. Ted has 14 marbles and Joe has 7. They have ——— marbles.

8. Tom bought some eggs. He set a hen on 13 and took 5 to his mother. How many eggs did he buy?

9. Tom has 9 chickens. If the 13 eggs on which his hen is sitting all hatch out, he will have ——— chickens.

10. It is Jane's birthday. She is 8 years old. "In 12 years," said Jane, "I shall be ——— years old."

ADDING AND CARRYING

Tom went to the store for his mother. He bought a dozen oranges for 38¢ and a pound of butter for 54¢. He watched the clerk add



the bill. The example looked like this:

$$\begin{array}{r} 38\text{¢} \\ 54\text{¢} \\ \hline 92\text{¢} \end{array}$$

“I don’t know how to add large numbers when the right hand column makes more than 9,” said Tom.

“Do it like this,” said the clerk. “Say ‘8 and 4 are 12.’ Put down the 2 of the 12, but don’t put down the 1. Keep the 1 in your mind and add it to the next column. Say ‘1 and 3 are 4; 4 and 5 are 9.’ Put down the 9. Your answer is 92 cents. Can you do it now?”

“Yes,” said Tom. “I believe I can.”

Tom did these examples when at home and got them all right. See if you can do as well.

12	48	29	56	66
<u>79</u>	<u>34</u>	<u>7</u>	<u>39</u>	<u>8</u>

33	42	54	38	25
<u>24</u>	<u>51</u>	<u>59</u>	<u>82</u>	<u>42</u>
<u>16</u>	<u>49</u>	<u>20</u>	<u>39</u>	<u>57</u>

66	70	49	69	10
<u>59</u>	<u>29</u>	<u>44</u>	<u>29</u>	<u>28</u>
<u>15</u>	<u>17</u>	<u>30</u>	<u>22</u>	<u>95</u>

PROBLEMS

For these problems you will need paper and pencil.

1. We were cutting paper dolls. We cut 10 for baby, 16 for Nell, and 15 for Mary Ann. How many dolls did we cut?

2. Frank earned 25¢ putting in wood, 13¢ pulling weeds, and 15¢ picking apples. How much did he earn?

3. In Jane's room at school there are 18 girls and 19 boys. How many children are in the room?

4. Claude spent 45¢ for a knife, 25¢ for a bat, and 20¢ for a ball. How much did he spend?

5. Carl raises chickens. His brown hen has 15 baby chicks, his white hen has 14, and his black hen has 13. How many baby chicks has Carl?

6. Kate practiced her music lesson 35 minutes in the morning and 25 minutes in the afternoon. How many minutes did she practice?

7. Mother canned 12 pints of cherries, 26 pints of apples, and 18 pints of plums. How many pints of fruit has she?

8. Henry sells papers. The first week he earned 38¢, the second week he earned 44¢. How much did he earn?

9. Mary's piano teacher wants her to practice an hour every day. Mary practiced 25 minutes in the morning, and 45 minutes in the afternoon. How many minutes did she practice? Did she practice as much as her teacher wished?

10. Tom has 34 books, his sister has 26, and his brother has 18. They keep their books in one bookcase. How many books are in the bookcase?

MONEY

When we write sums of money, this sign means dollars, \$. It is called the “dollar sign.” It is always placed before the number. If we want to write five dollars, we do it this way, \$5 or \$5.00. If we want to write dollars and cents, we do it this way, \$5.25. The dot separates the dollars from the cents.

Read these sums of money:

\$2.30	\$5.00	\$2.37
\$4.85	\$6.55	\$1.10
\$3.15	\$7.81	\$10.24

SOMETHING TO DO:

Write these sums of money. Use the dollar sign and the dot.

1. Four dollars and eighty cents.
2. Two dollars and fifty-five cents.

3. Three dollars and twenty-two cents.
4. Five dollars and eighteen cents.
5. Six dollars.
6. Eight dollars and five cents.
7. Nine dollars and sixty cents.
8. One dollar and thirty-two cents.

BANK DAY AGAIN

The children have saved a good deal of money this time.

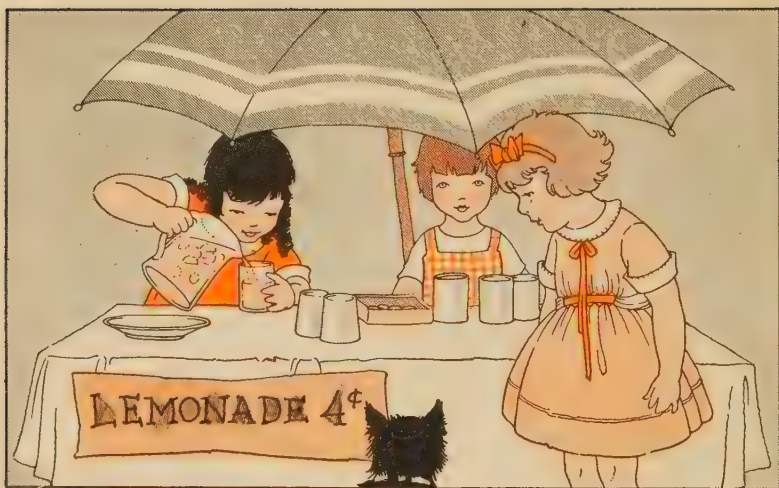
Tell how much each one has in dollars and cents.

1. Will has 2 fifty-cent pieces.
2. Sam has 4 dimes.
3. Mary has a fifty-cent piece and a quarter.
4. Tom has a dollar, a dime, and a nickel.
5. Nan has a quarter, 2 dimes, and 3 pennies.
6. John has 3 quarters and 2 nickels.
7. Jane has a fifty-cent piece, a nickel, and 5 pennies.

8. Jean has a dollar, a dime, and a nickel.
9. May has 4 nickels and a dime.
10. Jim has a fifty-cent piece, a dime, and
4 pennies.

HOW MANY?

- There are —— cents in a nickel.
There are —— nickels in a dime.
There are —— cents in a dime.
There are —— cents in a quarter.
There are —— nickels in a quarter.
There are —— cents in a half dollar.
There are —— quarters in a half dollar.
There are —— dimes in a half dollar.
There are —— cents in a dollar.
There are —— dimes in a dollar.
There are —— quarters in a dollar.
There are —— half dollars in a dollar.
There are —— nickels in a dollar.



THE LEMONADE SALE

Jane and Sue wanted to make some money to buy a doll's house; so one warm day they made several gallons of very nice lemonade and sold it for four cents a glass. They made a good deal of money at their sale.

Fill the blanks. When you are not sure of the answer, add the 4's:

1. Tom bought 1 glass. He paid —— ¢.

2. Harry bought 3 glasses. He paid —— ¢.

3. Ann bought a glass for herself and one for May. She paid —— ¢.

4. Joe bought a glass for himself and 3 other boys. He paid —— ¢.

5. Jean bought a pail and took six glassfuls home. She paid —— ¢.

6. An automobile with seven people in it stopped. The people each bought a glass. They paid —— ¢.

7. Ten ladies came by on their way home from a club meeting. They each bought a glass. They paid —— ¢.

8. Mr. Smith knocked over a pitcher that held 8 glassfuls. He wanted to pay for what he had spilled, so he paid —— ¢.

9. Ted and Norman drank 5 glasses. They paid —— ¢.

10. The baseball nine came by. Each boy bought a glass. They paid —— ¢.

SOMETHING TO DO:

Fill the blanks:

One 4 is ———.

Two 4's are ———.

Three 4's are ———.

Four 4's are ———.

Five 4's are ———.

Six 4's are ———.

Seven 4's are ———.

Eight 4's are ———.

Nine 4's are ———.

Ten 4's are ———.

REVIEW¹

Four 2's are ———.

Two 4's are ———.

Four 3's are ———.

Three 4's are ———.

Four 5's are ———.

Five 4's are ———.

Four 10's are ———.

Ten 4's are ———.

Five 3's are ———.

Three 5's are ———.

Two 5's are ———.

Five 2's are ———.

Two 10's are ———.

Ten 2's are ———.

Three 10's are ———.

Ten 3's are ———.

How much are six 3's?

¹ The six table may be worked out from this lesson if it is required for the grade.

Then how much are three 6's?

How much are six 2's?

Then how much are two 6's?

How much are six 4's?

Then how much are four 6's?

How much are six 5's?

Then how much are five 6's?

How much are six 10's?

Then how much are ten 6's?

PROBLEMS

1. Jack has some new clothes. His hat cost \$1.00; his sweater cost \$3.00; his shoes cost \$4.00. The new things cost \$ —— altogether.

2. Tom spent 65¢ for a box of candy for his sister's birthday present and 28¢ for a pencil box. He spent —— ¢.

3. May earned 98¢ washing dishes. She lent her sister 75¢. She had —— ¢ left.

4. Harry bought a book for 62¢. He gave the clerk 75¢. Harry's change was ——— ¢.

5. Ted, Jane, and Ann wanted to buy their mother a present, so they put their money together. Ted had 48¢, Jane had 27¢, and Ann had 19¢. They had ——— ¢ to spend.

6. Mary went on a long automobile ride with her mother and father. They rode 120 miles the first day, 236 miles the second day, and 215 miles the third day. They rode ——— miles.

7. At the grocery store Tim spent 11¢ for milk, 15¢ for a box of crackers, and 58¢ for butter. He spent ——— ¢.

8. In Mary's school there are six grades. The first grade has 30 children; the second grade has 32; the third grade has 28; the fourth grade has 42; the fifth grade has 31; the sixth grade has 28. There are ——— children in the school.

SUBTRACTION CHART

Can you subtract these combinations and those on the next page in 5 minutes?

5	8	0	4	7	1	5	2	4
4	4	0	2	6	0	1	1	1

4	6	4	3	7	2	3	8	9
0	3	3	0	1	0	2	1	8

5	8	3	10	6	1	6	7	16
0	7	1	5	5	1	1	0	8

9	14	6	10	12	10	4	18	8
1	7	0	1	6	9	0	9	0

9	6	9	7	5	8	6	8	9
3	2	0	5	2	0	4	2	9

7	3	7	5	2	7	10	8	8
2	3	3	3	2	7	2	3	6

5	10	7	9	6	9	9	10	10
<u>5</u>	<u>3</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>4</u>

8	10	10	9	9	11	12	11	12
<u>5</u>	<u>.8</u>	<u>6</u>	<u>4</u>	<u>7</u>	<u>6</u>	<u>3</u>	<u>4</u>	<u>5</u>

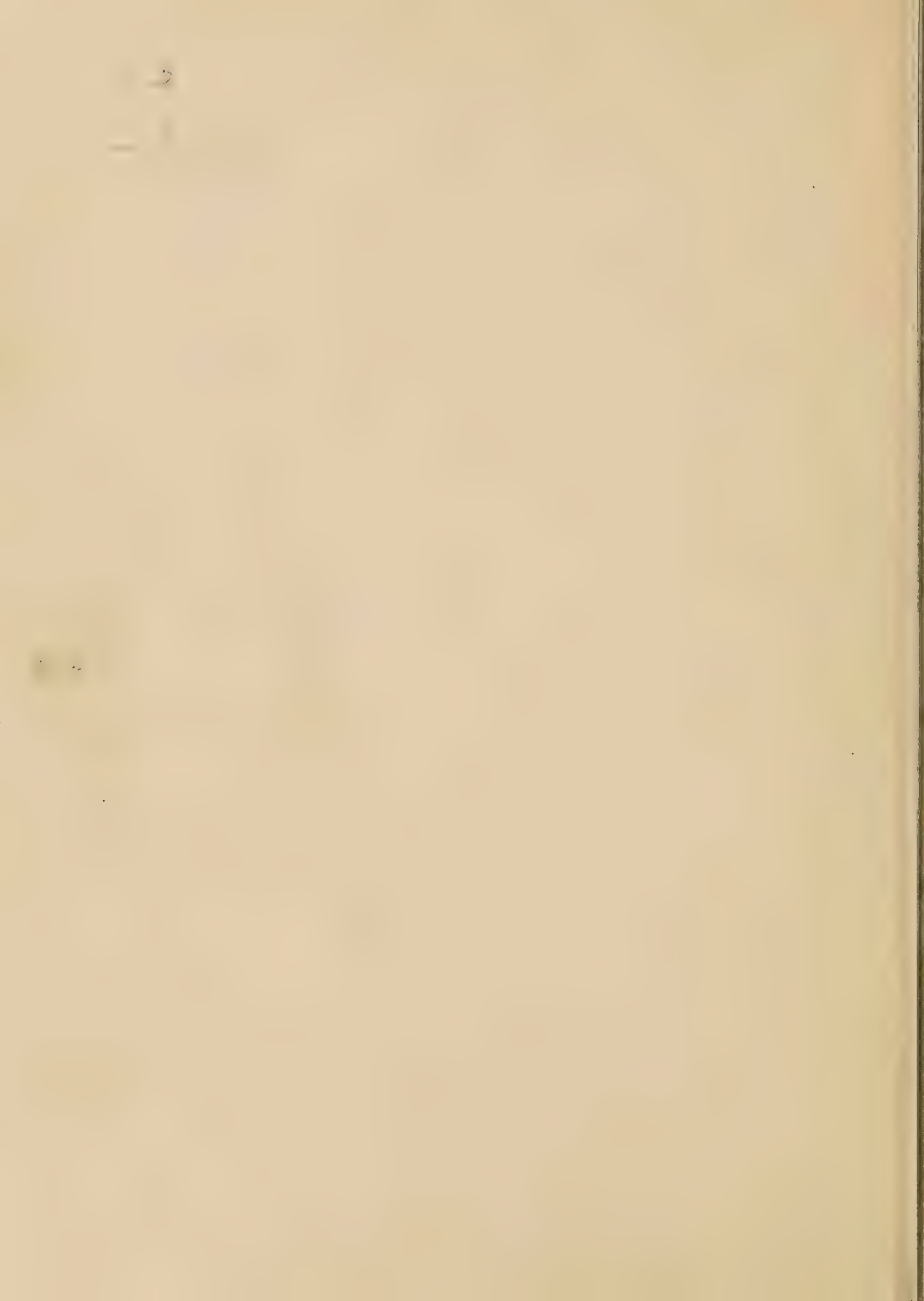
11	12	12	13	13	¹ 11	11	13	12
<u>2</u>	<u>8</u>	<u>9</u>	<u>4</u>	<u>6</u>	<u>9</u>	<u>3</u>	<u>7</u>	<u>4</u>

14	15	11	13	11	14	17	12	15
<u>8</u>	<u>6</u>	<u>5</u>	<u>9</u>	<u>7</u>	<u>6</u>	<u>9</u>	<u>7</u>	<u>8</u>

13	15	14	13	15	14	16	17	11
<u>8</u>	<u>9</u>	<u>9</u>	<u>5</u>	<u>7</u>	<u>5</u>	<u>7</u>	<u>8</u>	<u>8</u>

16
9

8
5
10
8
8
242
8





1

$$\frac{112}{911}$$

$$\frac{14}{28}$$

